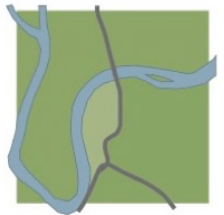


**RECONNECTING
WESTSIDE
CHATTANOOGA**
CORRIDORS, RESIDENTS, RIVERFRONT



College of Architecture
Georgia Institute of Technology
Atlanta, Georgia
Fall 2016

Professor Ellen Dunham-Jones
Jiaxuan Huang
Veda Kesarkar
Bushra Khalid
Jules Krinsky
Yijing "Sam" Liu
Erica Morgan
Chandru Sooryanarayanan
Smritika Srinivasan
Minye "Alice" Wang
Snow Wei
Jin Yu

FORWARD

Community-based change in the urban environment requires the active exercise of the imagination. Chattanooga Design Studio has championed the public interest through many major changes to our downtown in the past several decades. Throughout it all we have depended on the creativity and fresh vision of student teams.

It has been our mission, during the leadership of Stroud Watson (1980-2005) and in our second iteration, re-founded in 2015 under the leadership of Christian Rushing, to support the broadest possible community conversation about major issues in the urban environment. When a wide spectrum of community members are actively engaged in both the facts and the values, major initiatives gain the consensus and commitment to move forward.

On the Westside, a long and difficult history continues to shape lives and shape futures for our community. Even as we respond to immediate challenges, from highway construction

to losses in federal funding for housing, the opportunity and responsibility for a larger vision remains. The area's many committed stakeholders are engaged in multi-directional dialogue, which can only benefit from increased attention, a broader knowledge base, and some provocative visions of possible futures. Georgia Tech's Master of Science in Urban Design (MSUD) studio has made a sustained contribution to the ongoing conversations about the Westside. Putting aside the typical 'master-plan' posture, this team of graduate students has offered a series of research perspectives and fragmentary visions, that serve to humanize the land planning decisions at hand. Further research from new points of view will surely continue to enrich this conversation.

Roy Wroth, Design Director
Chattanooga Design Studio
May 4, 2017

INTRODUCTION

How do we retrofit urban renewal? In the 1960's the demolition of over 1,100 buildings on Chattanooga's Westside as part of the Golden Gateway Urban Renewal project and the construction of U.S. 27 through Downtown were understood as emblematic of progressive ideals of modernization. Today, the darker side of displacement and disenfranchisement is much more widely recognized as are the social consequences of isolating public housing residents away from Downtown. The question is what to do now that so many of the Westside's once "modern" buildings are aging and the highway is being widened. Admit that demolition was a mistake and restore the prior street grid even if it means displacing current residents – some of whom experienced displacement the first time? Reconceive of the highway less as a road through Downtown and more as a means to enter and exit an expanded Downtown that now includes the Westside? Keep many of the existing buildings and the highway but augment them with more diverse street and building types to create a more diverse,

more walkable, and more livable Westside? Leverage the now mature trees, steep slopes, and recent Riverwalk access as the Westside's distinguishing assets?

With guidance and support from the Chattanooga Design Studio, the graduate Masters of Science in Urban Design students at the Georgia Institute of Technology took on these questions in the fall of 2016. Their answers are presented here as inter-related proposals for Reconnecting Westside Chattanooga.

I would like to personally thank the Chattanooga Design Studio for their support of the work, their hosting of stakeholder meetings, and invaluable contributions to our understanding of Chattanooga. Roy Wroth in particular contributed a combination of strong criticism and thoughtful encouragement that inspired all of the students throughout the studio class. I would also like to thank the students for their good work and good humor. Thank you!

Ellen Dunham-Jones
Professor, MSUD Director
Georgia Institute of Technology

Corridors Team:

Veda Kesarkar
Chandrasekaran Sooryanarayanan
Minye "Alice" Wang
Jin Yu

Residents Team:

Jiaxuan Huang
Jules Krinsky
Erica Morgan
Smritika Srinivasan

Riverfront Team:

Bushra Khalid
Yijing "Sam" Liu
Hanxue "Snow" Wei

HISTORY



Chattanooga, TN from Camron Hill, 1909

Source: Library of Congress - www.loc.gov

Four hundred and three acres of Chattanooga's Westside neighborhood were demolished in the 1950's-1970's as part of the federally funded Urban Renewal efforts to modernize cities. As was common practice, the Westside's homes and street grid were bulldozed under the auspices of slum clearance and better accommodating automobiles. They were replaced with an urban freeway and modern public housing projects, new office buildings, a shopping center, mostly on single-use superblocks. As was also a common result, the process destroyed an established minority community and disconnected the new low-income housing from the rest of the city. Now, that the mid-century projects themselves are in need of repair, how should the legacy of urban renewal be retrofitted? Can a more supportive urban framework be established to guide incremental change? How do we respect the existing community's hopes and fears while providing the benefits of urbanism and connectivity? How might a reconnected Westside better participate in the future of Chattanooga?

Initially a riverfront settlement, Chattanooga's prominence as an early manufacturing and railroad hub earned it the nickname the "Dynamo of Dixie" in the early 20th Century. By the late 1950's, urban renewal funding provided the opportunity for Chattanooga to accommodate a much more automobile-oriented future. However, by 1969, the city's air was deemed the most polluted in the country and its population was declining. In 1983, civic leaders founded Chattanooga Venture to engage the public in planning initiatives for the future of Downtown. Beginning with the development of Miller Plaza and the Riverpark anchored by the Tennessee Aquarium, innovative collaborations succeeded in repositioning Chattanooga as "the Scenic City." In 2012, Chattanooga's Electric utility used ARRA stimulus funding to complete roll-out of a citywide Fiber Optic smart grid network with the fastest speeds in the world. With a burgeoning innovation district downtown, Chattanooga is now recognized as "Gig City."



Chattanooga Sanborn Map circa 1928's

Source: Library of Congress - www.loc.gov

View of Golden Gateway, 1964



Chattanooga Library - catalog.lib.chattanooga.gov

Through the 1950's, the Westside's urban framework continued Downtown Chattanooga's walkable street grid – except for where it ran into Cameron Hill to the north and the riverfront to the west. The Westside's riverfront has been home to industry since the Civil War, (although it has seen recent plant closures.) Twenty acres to the south east were reconfigured in 1940 when College Hill Courts, a 497-unit public housing project of 2- and 3-story buildings was constructed. The rest of the old streets and over 1,100 buildings and 100 businesses were demolished and 1,400 families and individuals were relocated as part of the Golden Gateway Urban Renewal project. It put in place auto-oriented curving streets and cul-de-sac forming superblocks with buildings set back from, and/or rotated from the street. The urban renewal plan bracketed the area with the Riverfront Parkway on the west – primarily for truck access to the industries, and the new

View of Riverfront, 1964



Chattanooga Library - catalog.lib.chattanooga.gov

elevated urban freeway, US 27, complete with cloverleaf intersections to the east, effectively cutting the area's residents off from easy access to the river and Downtown. In 1962 the top half of Cameron Hill, including a park and civil war site, was sliced off and used as fill to elevate the highway, significantly reducing the number of through streets. Making room for the highway necessitated additional demolition and relocation of residents, many of whom ended up in the new Westside housing.

The superblocks were built out in the 1960's and '70's with a shopping center and car dealership along Martin Luther King Boulevard (formerly Ninth St), three senior housing towers, several low-rise subsidized garden apartment complexes, and a school. Low-rise office buildings have since been built along Riverfront Parkway.

Westside Renewal Area, 1964



Source: Carter J. Castor, "Downtown Chattanooga: Planning and Preservation," Ball State University, May, 2015.

CHALLENGES AND OPPORTUNITIES FOR THE WESTSIDE

1 Several of the residential buildings are aging, prompting renovation or redevelopment:

- The Chattanooga Housing Authority announced plans in 2014 to demolish College Hill Courts, claiming that redevelopment will be cheaper and better than renovation. No specific plans have yet been published.
- The garden-style, Cameron Hill Apartments from 1974 were deemed dilapidated and demolished in 2006. They were replaced by the LEED Gold, gated headquarters of Blue Cross Blue Shield (BCBS) Tennessee atop the hill and its 7-story parking deck on the south side of the hill facing Martin Luther King Boulevard. BCBS also took over the former shopping center on Martin Luther King Boulevard at the cloverleaf.
- Plans to renovate the 1970's senior housing towers have been announced

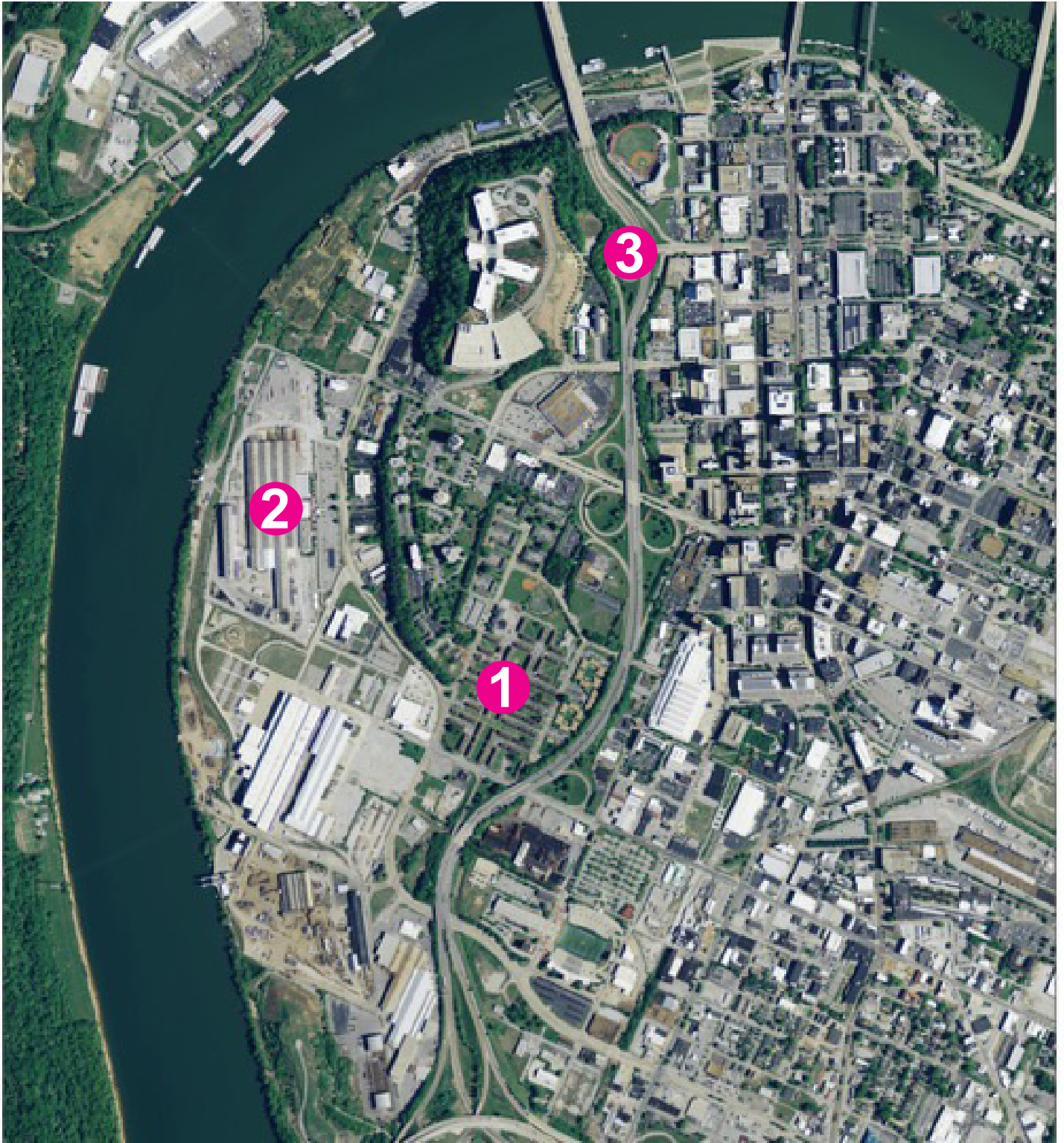
2 The industrial properties are clean, high-tech facilities providing well-paying jobs, but it is no longer clear how long they will remain industrial:

- Former industrial riverfront property just north of Martin Luther King Boulevard has recently been redeveloped into a mostly residential “new urbanist” project called Cameron Harbor. It has sold well and is expected to soon double in size.
- The former Alstom nuclear turbomachinery plant with over \$300M worth of unique high-quality equipment was bought by GE Power in 2015, who promptly closed it in 2016. The 70-acre riverfront property may be considered for new manufacturing, an industrial park, or commercial and residential space akin to Cameron Harbor.
- SIAG Aerisyn, a wind tower maker went bankrupt in 2015. Its land, leased from Alstom, recently sold for \$3.5M and is currently being marketed for new industry or possible hotel.

3 US 27 is currently being widened from 4-6 lanes to 6-8 lanes. It is also being straightened, further cutting into the east side of Cameron Hill.

These changes provide the studio both opportunities and challenges for the Westside, particularly for its 2,400 residents. We have benefited from working with Chattanooga stakeholders through the assistance of the Chattanooga Design Studio, the successor organization to the Urban Design Studio that helped lead the design of so many of Downtown's improvements in the 1980's and '90s. We also benefitted from building on the work of a 2009 Georgia Tech urban design studio supported by RiverCity that similarly looked at redeveloping the Westside and reconfiguring US 27. Professors Richard Dagenhart and Perry Yang's studio proposed two alternative masterplans with attention to the highway, stormwater management, extension of the Riverpark, and mixed-use redevelopment. We hope that our proposals will also encourage renewed attention to the proposals from 2009.

(Their studio report can be accessed here: <https://smartech.gatech.edu/handle/1853/36594>)



WESTSIDE DEMOGRAPHICS:2015

Population: 2,276

Median Age: 50.3

Race:

African American 80%

Caucasian 18%

Asian 2%

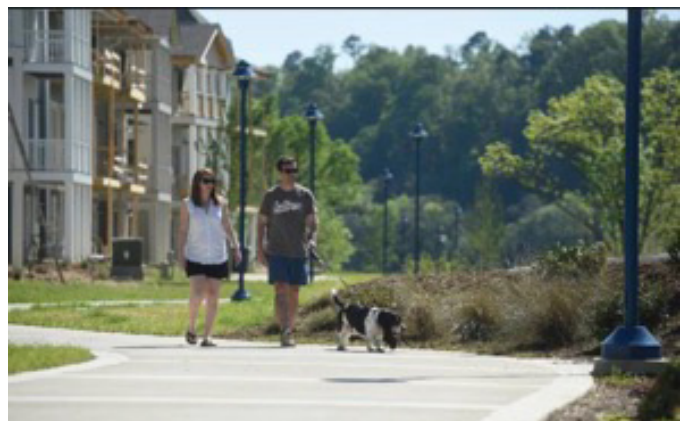
Median Income: \$9,631

Employment:

Employed 19%

Unemployed 11%

Not in Labor Force 70%

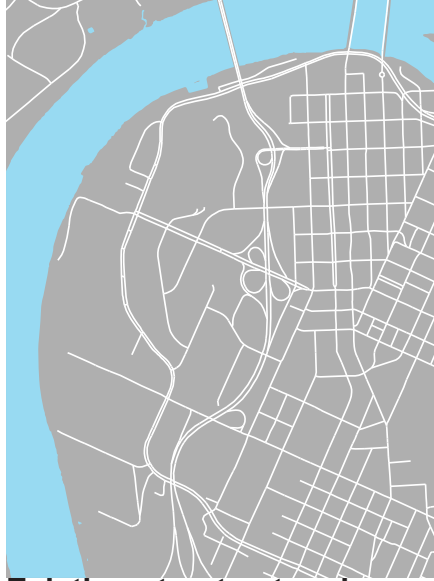


Source: city-data.com; emporis.com; neighborhoodscout.com

WESTSIDE EXISTING CONDITIONS:2016



Topography (>30% slope in red)

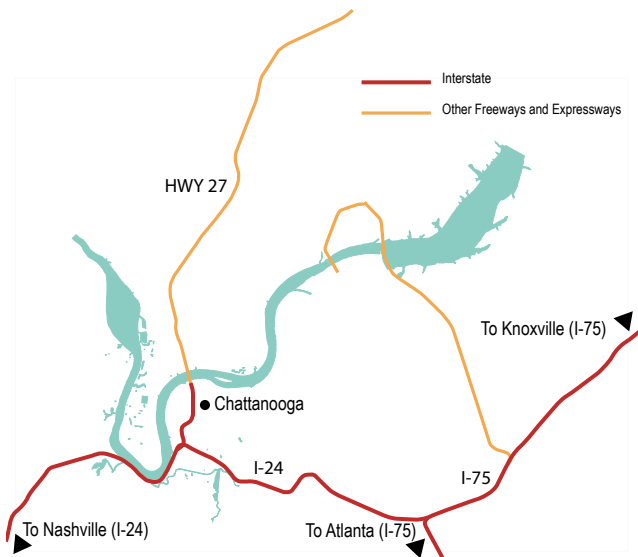


Existing street network

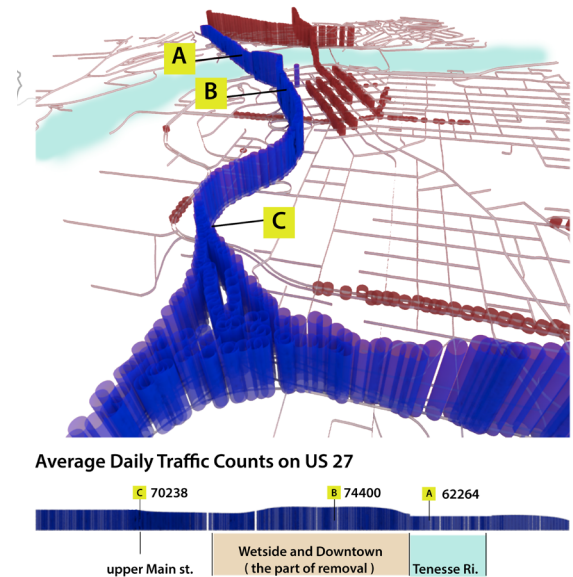


Figure/Ground Map showing building footprints

The Westside of Chattanooga is located between US 27 and the Tennessee River, just west of Downtown Chattanooga. US 27 is a limited-access, elevated interstate that significantly divides the Westside from the Downtown before it becomes Highway 27, a surface street. Built to ease suburban access to Downtown, the necessity of its high-speed form is questionable. Analysis of traffic flows indicates relatively little through traffic. Its short length indicates that slower-speed surface routes would not significantly impede commute times and could improve economic development. US 27 has never lived up to the projected traffic counts. “Downtown” has expanded and can arguably be better served by surface street connections that distribute traffic to its multiple activity centers, including perhaps a re-integrated and revitalized Westside.



Regional transportation context



The higher ADT at point B reveals that US 27 principally serves commuter traffic into downtown. It does not operate as an interstate for through traffic.

PREVIOUS PROPOSALS: 2009 GEORGIA TECH STUDY

(The complete report for this earlier study can be accessed online at: <https://smartech.gatech.edu/handle/1853/36594>)



The Dual Boulevard Plan - The above plan is one of the 2 options produced by Georgia Tech students in 2009 for Richard Dagenhart and Perry Yang's westside Chattanooga studio. The Dual Boulevard framework extends the traditional block structure of downtown Chattanooga by converting US 27 into a dual multi-way boulevard, where through traffic is routed on center lanes and local traffic on the outer lanes.



The Tamed Highway Plan - The above plan is second of the 2 options produced by Georgia Tech students in 2009 for Richard Dagenhart and Perry Yang's westside Chattanooga studio. The Tamed Highway aims to mitigate the existing problems of US 27 by modifying the highway right of way and access ramps and then creating densely connected blocks and a street structure on the Westside that can change over time.

2016: 3 FRAMEWORKS

Reconsidering U.S. 27 remained a priority in 2016, but the potential for changes to other properties and the desire to present Chattanoogaans with multiple options led to proposals for 3 distinct subareas: Corridors, Residents, and Riverfront. The Corridors team focused on U.S. 27, Main Street and Martin Luther King Boulevard as primary routes with the potential to reconnect the Westside and Downtown, and Downtown to the west riverfront. The Residents team focused on balancing the needs of existing residents in and around Gateway Towers and College Hill Courts with the opportunities to increase amenities through redevelopment and reconnection. The Riverfront team explored options for redeveloping much of the under-used industrial property and better leveraging the riverfront for residential and public use.

Each team began by identifying the assets and challenges of their part of the Westside, speculated about several “what if” scenarios, and then developed a more detailed proposal for their preferred scenario. The assets and challenges of the Westside are summarized below.

Assets

- Riverfront
- Proximity to Downtown
- Tree Canopy
- Cultural memories
- 3,500 jobs at Blue Cross Blue Shield
- Green, high tech manufacturing capabilities

Challenges

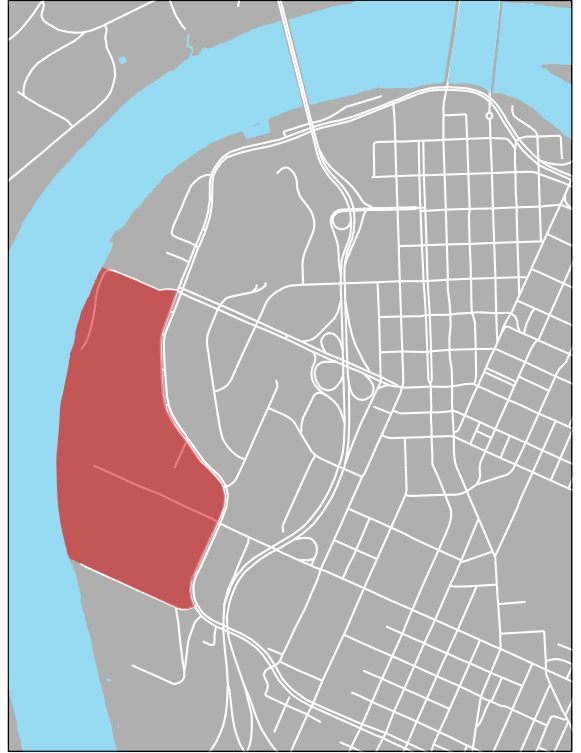
- Aging buildings
- Auto-dependent design but low car ownership
- Concentration of poverty
- Topographic barriers
- Closed Industrial sites
- Limited access to Downtown, to jobs, and to retail, being made worse by the widening of the US 27



Corridors

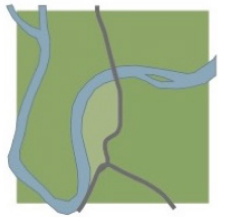


Residents



Riverfront

**RECONNECTING
WESTSIDE
CHATTANOOGA**
CORRIDORS



INTRODUCTION



The corridors team was tasked with examining highway 27, which divides downtown Chattanooga from the Westside. The team also looked at the two major corridors that extend in to the Westside, Main Street, just south of College Hill Courts, and Martin Luther King Boulevard, just north of Gateway Towers.

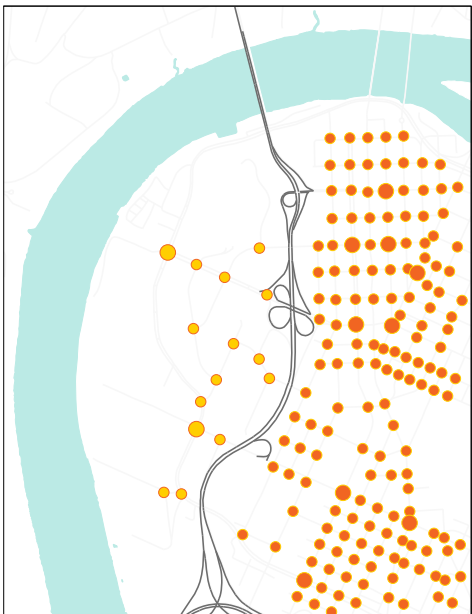
Analysis of highway 27 identified that it primarily serves commuters getting to downtown Chattanooga. This would support the idea of ending the highway as it meets the north and south edges of downtown, directing traffic onto surface streets, thus removing the physical barrier between Westside and downtown.

Further analysis of the Martin Luther King and Main Street corridors found a lack of overall connectivity and activity when compared to downtown. Additionally, for a population with low

car ownership, the Westside's hilly topography, development pattern of large blocks, and limited bus service inhibits walkability and isolates residents. The lack of connectivity and autocentric landscape found on the westside contributes to the social imbalance and fragmentation found in the area.

Taking into account the analysis of the Westside, the corridors team proposed four "what-if" urban framework scenarios that address the issues and proposed a long term vision for Westside Chattanooga.

The Westside: Physically disconnected, socially imbalanced

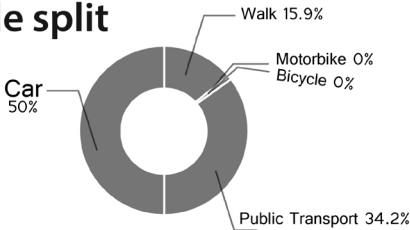


Intersection Density
The low level of intersection density on the Westside reveals how much less walkable it is than Downtown.

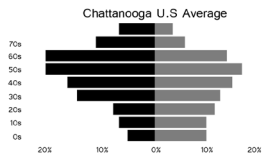


Physical Barriers
Access to and from the Westside neighborhood is severely constrained by U.S. 27, the industrial property along the riverfront, and Cameron Hill.

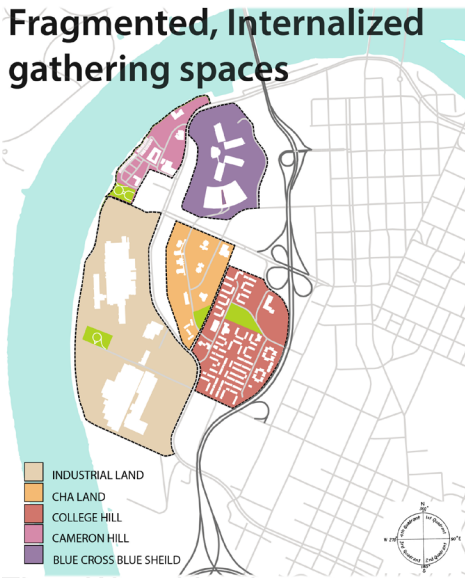
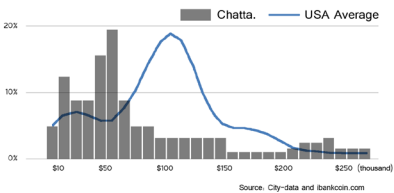
Mode split



Dim outlook for growth



Missing middle income



While the Westside has diverse employee and resident groups, they have few spaces in which to interact and appear to be very socially segregated.

WHAT IF SCENARIOS



Community become mixed-used.

What if the Westside community became mixed-use... This what if scenario imagines the highway being converted to a boulevard, and the street network of downtown extending onto the westside. The added connectivity would facilitate walkable, mixed-use redevelopment with more opportunities for the existing diverse employees and residents to live, work, and play together.



Reorient the US 27.

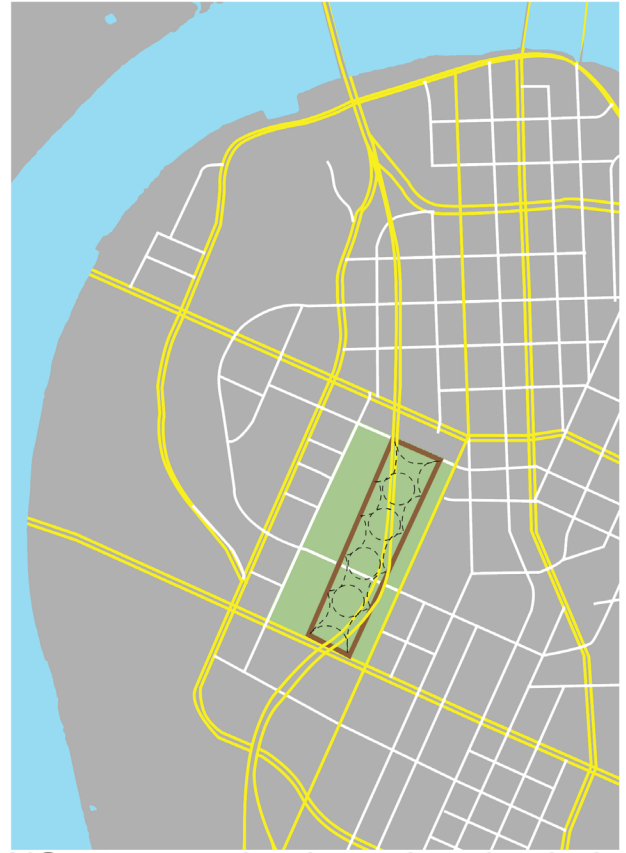
What if US 27 is reoriented around downtown.. This what if scenario imagines the highway being reoriented to enter downtown from the Westside. As the highway crosses the river on a new bridge, it is converted to a boulevard, which would stimulate economic activity and increase connectivity to the Westside.



US 27 become urban park.

What if US 27 becomes an urban park...

This what if scenario imagines the highway is removed and replaced with a park. The park area would serve as a recreation space for all Chattanoogaans as well as a new walkable and bikable corridor for residents of the Westside.



US 27 retained and raised in pilotis.

What if US 27 is retained and raised by pilotis...

This what if scenario imagines the highway is retained, but the earth berms are removed and replaced with pillars. The new found open space under the highway would allow for more road connections to the west-side, reducing the physical barrier the highway presented previously.

GOALS AND STRATEGIES

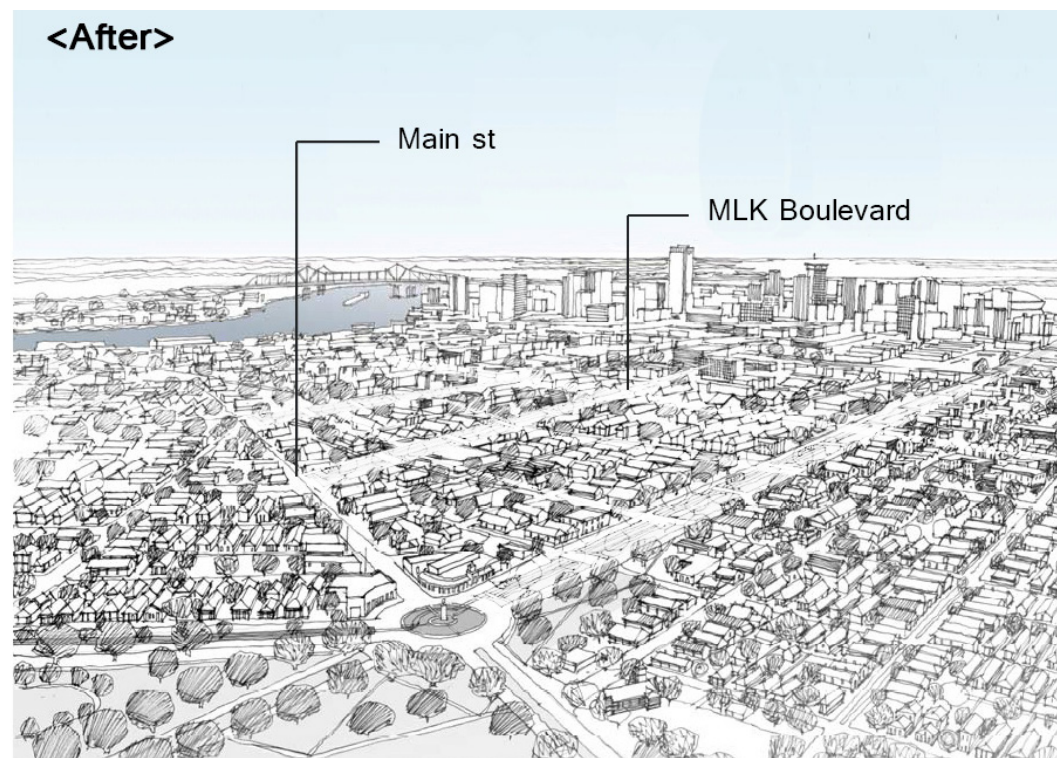
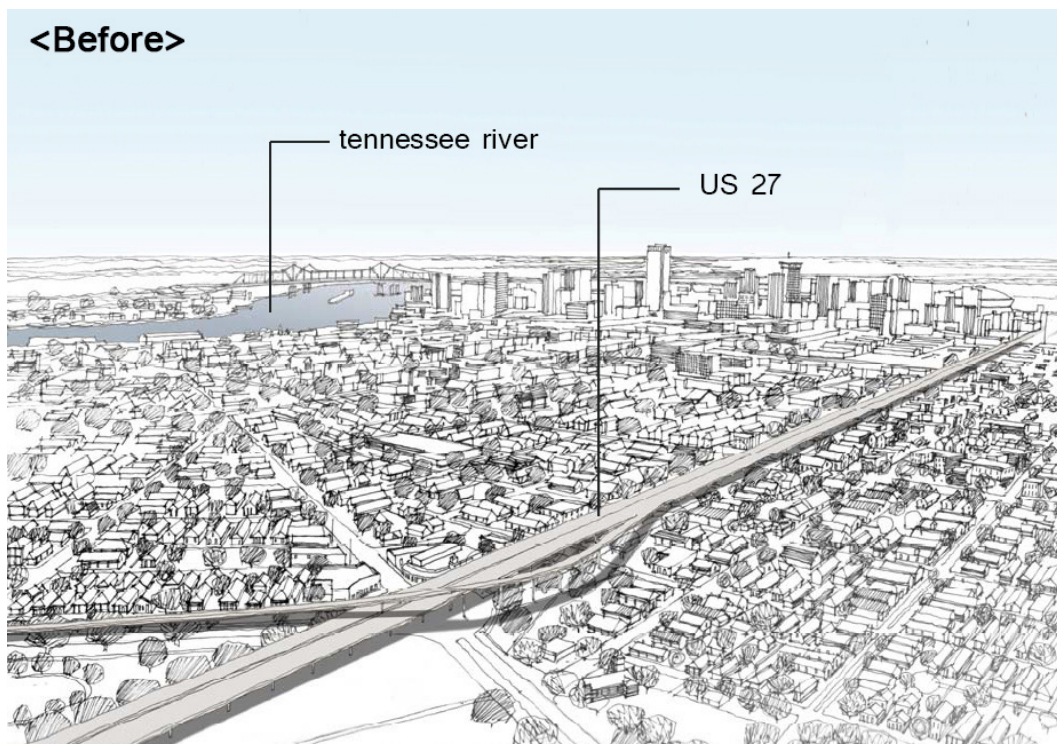
Based on the analysis of the corridors and the exploration of urban framework scenarios, the team developed a set of goals and strategies to move forward and develop a long term plan for the westside.

GOALS

- 1. Multi-modal** — more walkable, bikable, transit-served
- 2. Reconnect + Density** — to support more amenities, walking, transit
- 3. Diverse** — households, uses, buildings, and streets

STRATEGIES

- 1. Remove US 27** - redistribute and slow traffic to support mixed-uses on existing avenues and new streets
- 2. Restore** the historic street grid + connect MLK and Main St. to the river
- 3. Diversify** lot sizes and uses, especially to accommodate “missing middle” building types



What if Chattanooga learned from New Orleans' proposals to tear down I-10 and similarly reconnect neighborhoods separated by highways and rivers? These drawings of New Orleans re-imagine the Mississippi River as the Tennessee River and I-10 as US 27.

PROPOSED PLAN

The proposed urban framework replaces U.S. 27 with a gridded street network to distribute traffic and increase connectivity. Existing streets are shown in gray, higher-capacity streets in red, neighborhood commercial streets in orange, local residential streets in yellow, and pedestrian/bike paths in green.

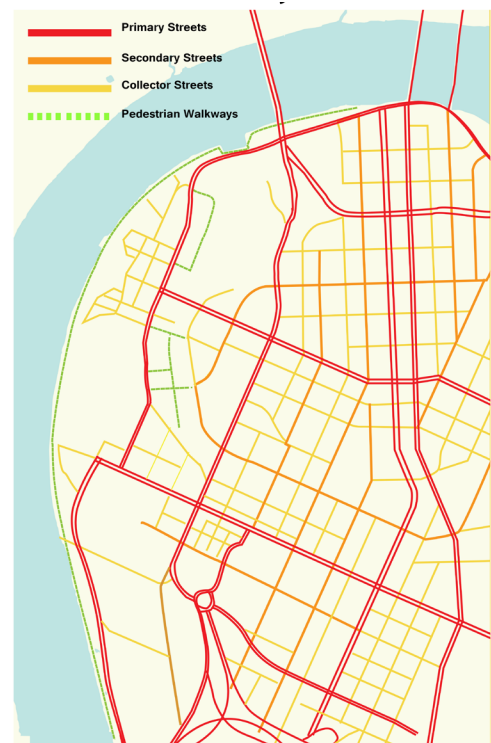
The new plan envisions mixed-use buildings with pedestrian-oriented frontages on all the major corridors. Traffic from north and south on U.S. 27 is shifted slightly west and greeted by multi-modal transit hubs with parking (shown in pink) to enable drivers to park and switch to transit, bikes, or walking as they enter downtown. These hubs are connected by a new North-South neighborhood-serving retail street (shown in orange). Anchored by the northern transit hub, Martin Luther King Boulevard primarily extends office and workspace (shown in blue) from Downtown to a retail and entertainment hub (shown in orange) at the riverfront. Main Street extends the retail and commercial uses (shown in red) from Southside to the riverfront. Additional retail and commercial spaces connect the southern transit hub to the baseball stadium. Residential uses are shown in yellow. The existing industrial riverfront uses remain as they are for the time-being.



NEW PUBLIC SPACES CONNECTED TO CIVIC INFRASTRUCTURE



EXISTING STREET NETWORK



PROPOSED STREET NETWORK

PROPOSED URBAN FRAMEWORK



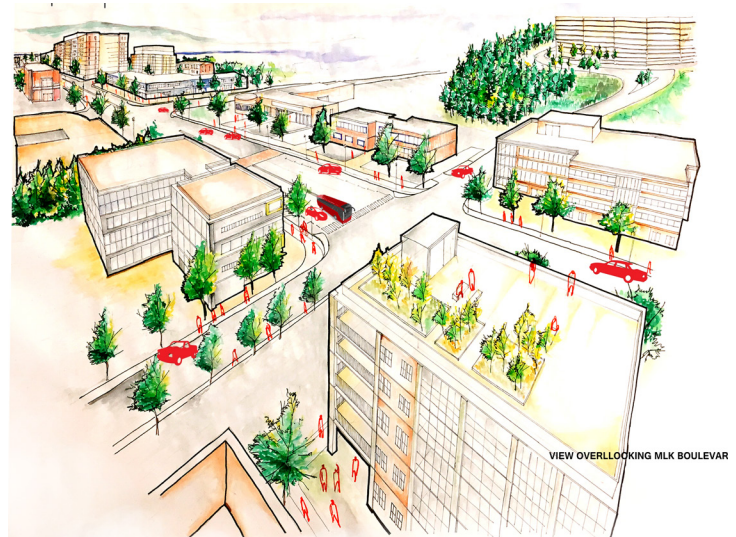
MARTIN LUTHER KING CORRIDOR ILLUSTRATIVE PLAN



Illustrative plan view of Martin Luther King Boulevard with potential new building footprints shown in white.

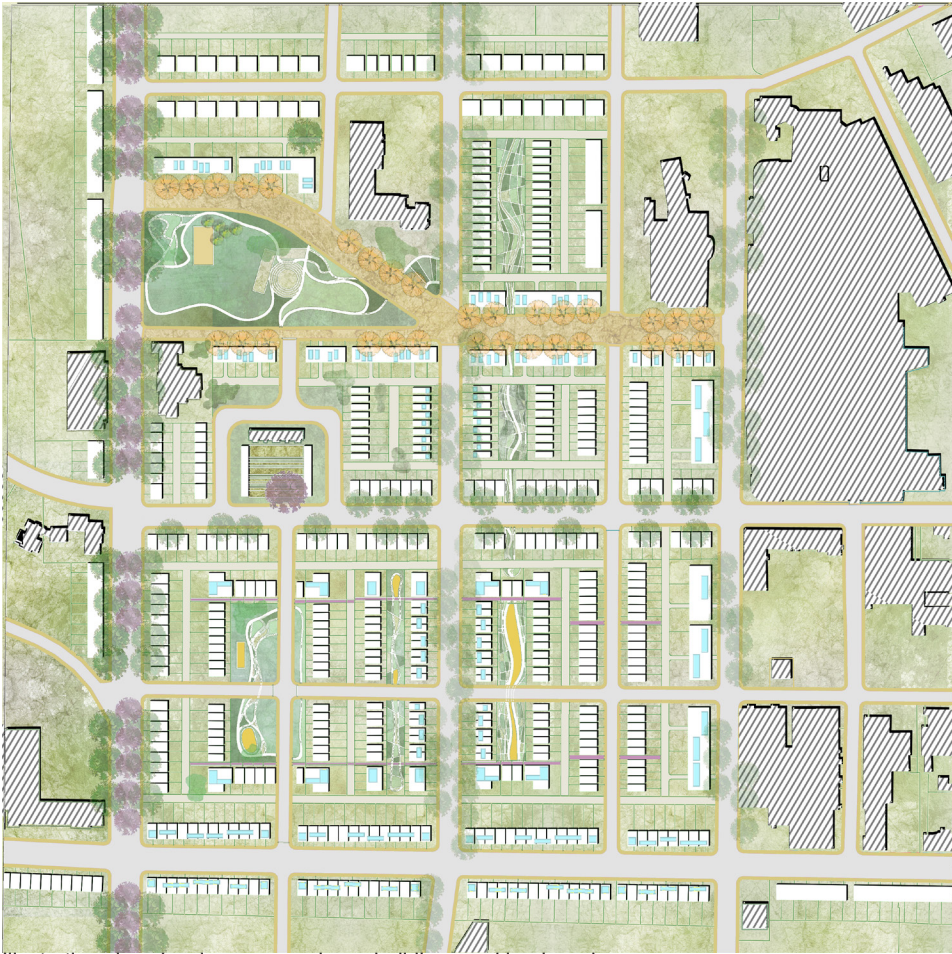
PLAN HIGHLIGHTS

- Connect MLK to the Riverfront
- Expanded park and entertainment district at node with Riverfront Parkway
- Diverse housing types near riverfront
- Transit hub at foot of former US 27 and MLK
- Creative office and mixed-use near transit hub
- New park to connect transit hub to existing anchors and Innovation District



Perspective view of Martin Luther King Boulevard looking west where it meets the new North-South Boulevard

MAIN STREET CORRIDOR ILLUSTRATIVE PLAN

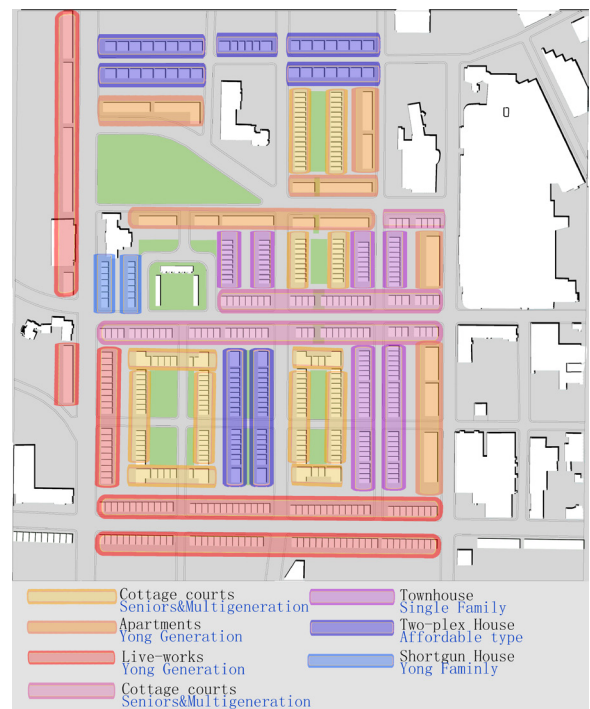


Illustrative plan showing proposed new buildings and landscaping.

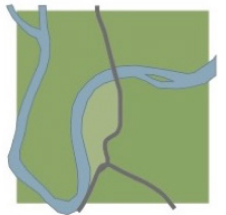
PLAN HIGHLIGHTS

- Downtown E-W streets extended into College Hill, new pedestrian street connecting the Convention Center to the park, new N-S streets
- Neighborhood Commercial & Live-Work Units on Main St and N-S Avenue
- College Hill head buildings, tree, and green retained as community center
- Diverse housing types

The right image: A mix of residential building types likely to appeal to different household types is proposed to diversify the Westside neighborhood and promote social interaction. Attention is paid to insure that building fronts face other building fronts and backs face backs along alleys. Major streets are flanked on both sides with similar building types to present unity within the diversity of building types. Three of the original College Hill court buildings are retained around a preserved green space and existing large tree to serve as a local neighborhood park.



**RECONNECTING
WESTSIDE
CHATTANOOGA**
RESIDENTS



INTRODUCTION



The residents of the Westside can be largely found in three distinct areas; seniors in the area surrounding Gateway Towers, families found in and around College Hill Courts, and a mix of retirees, families and young professionals in the relatively high cost residential and hotel Cameron Harbor development recently built on a former industrial site on the riverfront just north of Martin Luther King Boulevard. Other than the market rate housing in Cameron Harbor, a majority of the housing on the Westside is subsidized public housing, controlled by the Chattanooga Housing Authority. Through analysis of the area, the residents team identified two major issues affecting the residents of Westside Chattanooga; limited connectivity, and social fragmentation.

Downtown has actively engaged with the river through the placement of public ac-

tivities and functions along the riverfront. The extension of the Riverwalk along the Westside is an important amenity but there are very few access points to it from the Westside because of the large and now closed industrial properties. Cameron Harbor has demonstrated the market potential of more housing along the river, but this amenity is largely inaccessible to the residents in the subsidized housing. US 27 also limits Westside residents' access to Downtown's jobs and amenities.

Within Westside Chattanooga, there are stark differences between the grouping of the residents based on their income and age. Additionally topography and barriers created by roads and highways, further isolate the residents. This lends to the social fragmentation seen today.

WESTSIDE CHATTANOOGA ANALYSIS

LIMITED CONNECTIVITY



Industrial barrier to river



Highway barrier to downtown

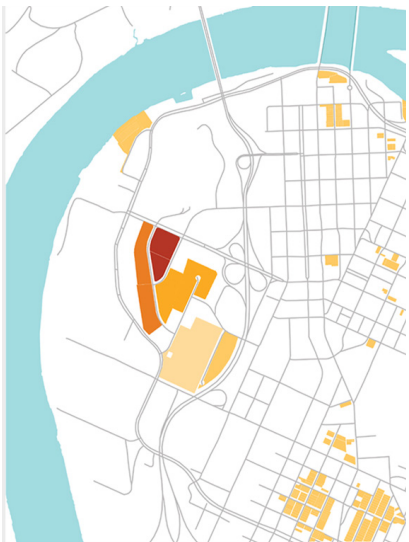


Limited bus routes and stops

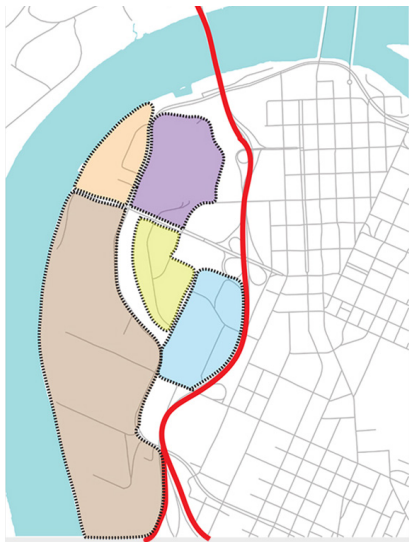
SOCIAL FRAGMENTATION



Economic imbalance



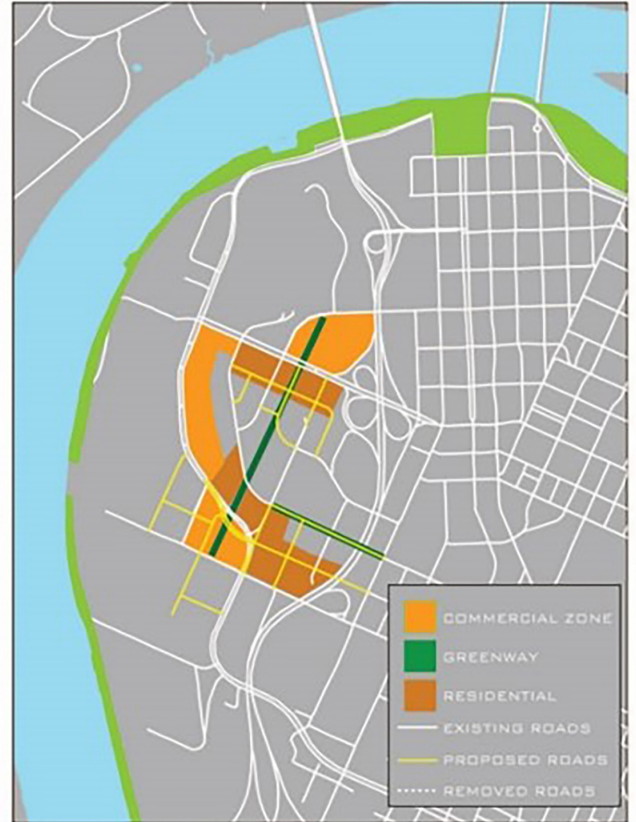
Clustered age groups



Social fragmentation

WHAT IF SCENARIOS

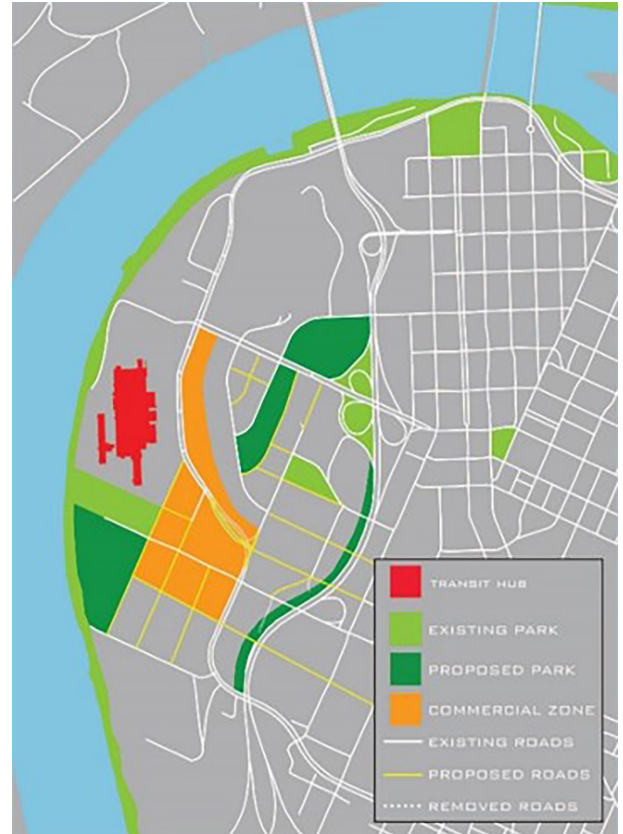
Taking into account the previously identified issues of limited connectivity and social fragmentation, the residents team proposed three “What if” urban framework scenarios to explore possible long-term improvements for Westside Chattanooga.



What if there was an educational institution set as an anchor point on the Westside? This what if scenario imagines an educational institution anchoring the the westside. An institutional anchor could spark development, provide jobs and educational opportunities for the residents of the Westside.



What if there was a regional park on the Westside with amenities to serve the entire city? This what if scenario imagines a regional park being developed on the westside. This park would provide recreation for all of Chattanooga and could attract more people to the Westside.



What if the Westside and Downtown Chattanooga's only mode of transportation was walking, biking, and various forms of public transit? This what if scenario imagines a future where auto dependency is greatly reduced through an expanded public transportation system. An extended street network and new greenways promote walking and biking.

GOALS AND STRATEGIES

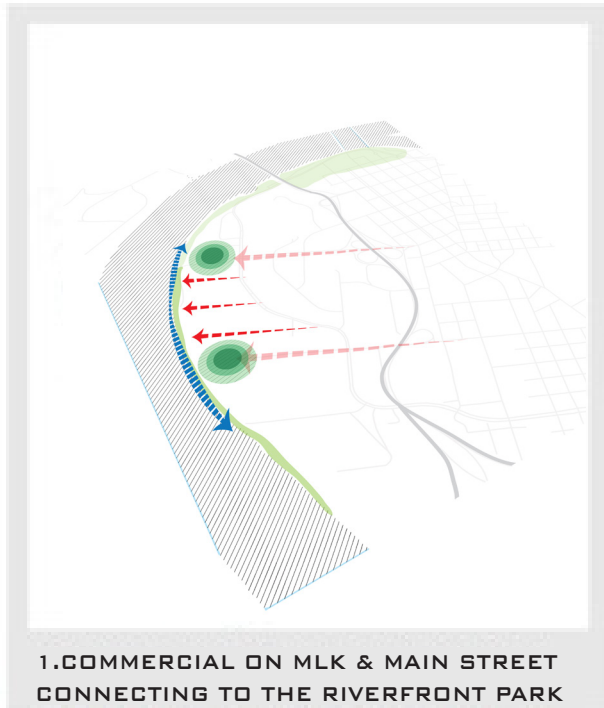
Based on the analysis of the residential areas and the exploration of urban framework scenarios, the team developed a set of goals and strategies to move forward and develop a long term plan for the westside.

GOALS

- 1. Connect to River**
- 2. Connect to Downtown**
- 3. Improve walkability**
- 4. Mixed-income, mixed generational public spaces**

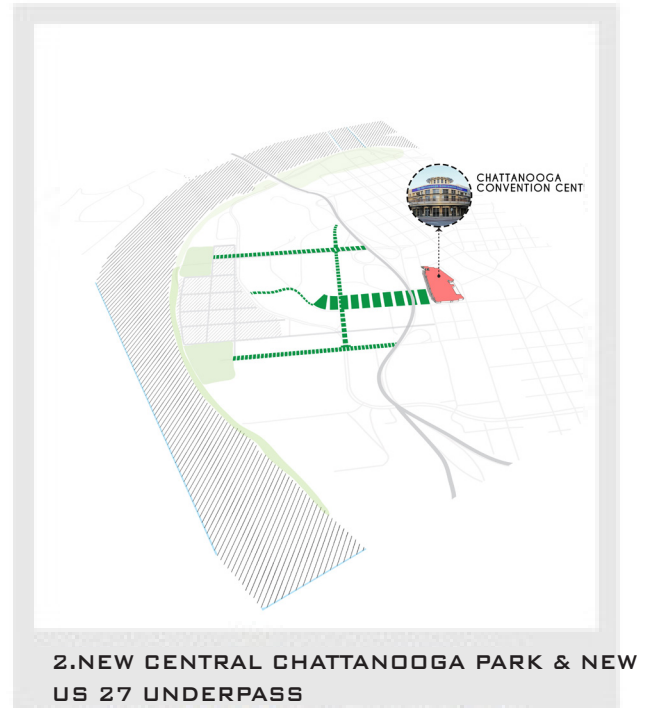
STRATEGIES

- 1. Commercial on MLK and Main Street connecting to riverfront park**
- 2. New central Chattanooga Park & New US 27 underpass**
- 3. Redevelop the residential areas with smaller blocks & green boulevards**
- 4. Range of housing types & activities in the new parks**

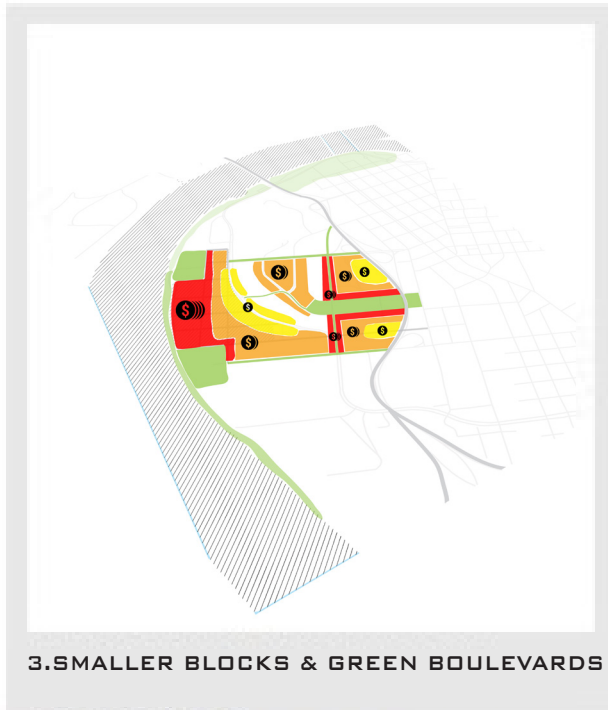


The residents team's proposal combines and elaborates on the best ideas from the "what if" scenarios.

To improve Westside residents immediate access to jobs, groceries, pharmacies, and other daily needs, the team recommends reinforcing the connections of Martin Luther King Boulevard and Main Street to the Riverfront with commercial uses. The commercial viability of these corridors to serve Westside residents need to be strengthened by allowing them to also connect the rest of the city more to the western Riverwalk.



For the most part, Westside residents enjoy good access to green spaces - whether river views, lawn courts, or the leafy canopy of mature trees. However, opportunities for active recreation and social interaction in parks is limited. To remedy this for the Westside residents and to anchor Chattanooga's green network, the team recommends construction of a new central park as a gathering space for the entire city. Located primarily in the Westside, it would be connected to Downtown and the Civic Center with a landscaped underpass crossing US 27. A new North-South "green boulevard" would further connect the new park to the tree-lined corridors of Martin Luther King Boulevard and Main Street, and from them to their new riverfront parks and the Riverwalk.



To further increase connectivity for existing residents, overcome social fragmentation, and attract more commercial development to serve residents' needs, the team recommends a mix of preservation of existing affordable housing with redevelopment of new mixed-income housing. Allowing for the constraints of the steep topography (shown in yellow), the team proposes to increase walkability through a finer grain network of streets, smaller blocks and green boulevards.



To meet the needs of a broader number of households, the team recommends significant diversification of the lot sizes and housing types on the Westside. The existing high-rises should be renovated and preserved. College Hill, although a fine example of 1940's courtyard housing, is beyond repair. A mix of townhouses, mixed-use apartment flats, live-works, and cottage courts are recommended to face the new green streets and parks or to infill between them. These housing types are designed for households of different ages, incomes, and sizes. The parks, in turn, are designed to provide a diverse range of activities to appeal to this broader cross-section of Chattanooga residents.

PROPOSED PLAN

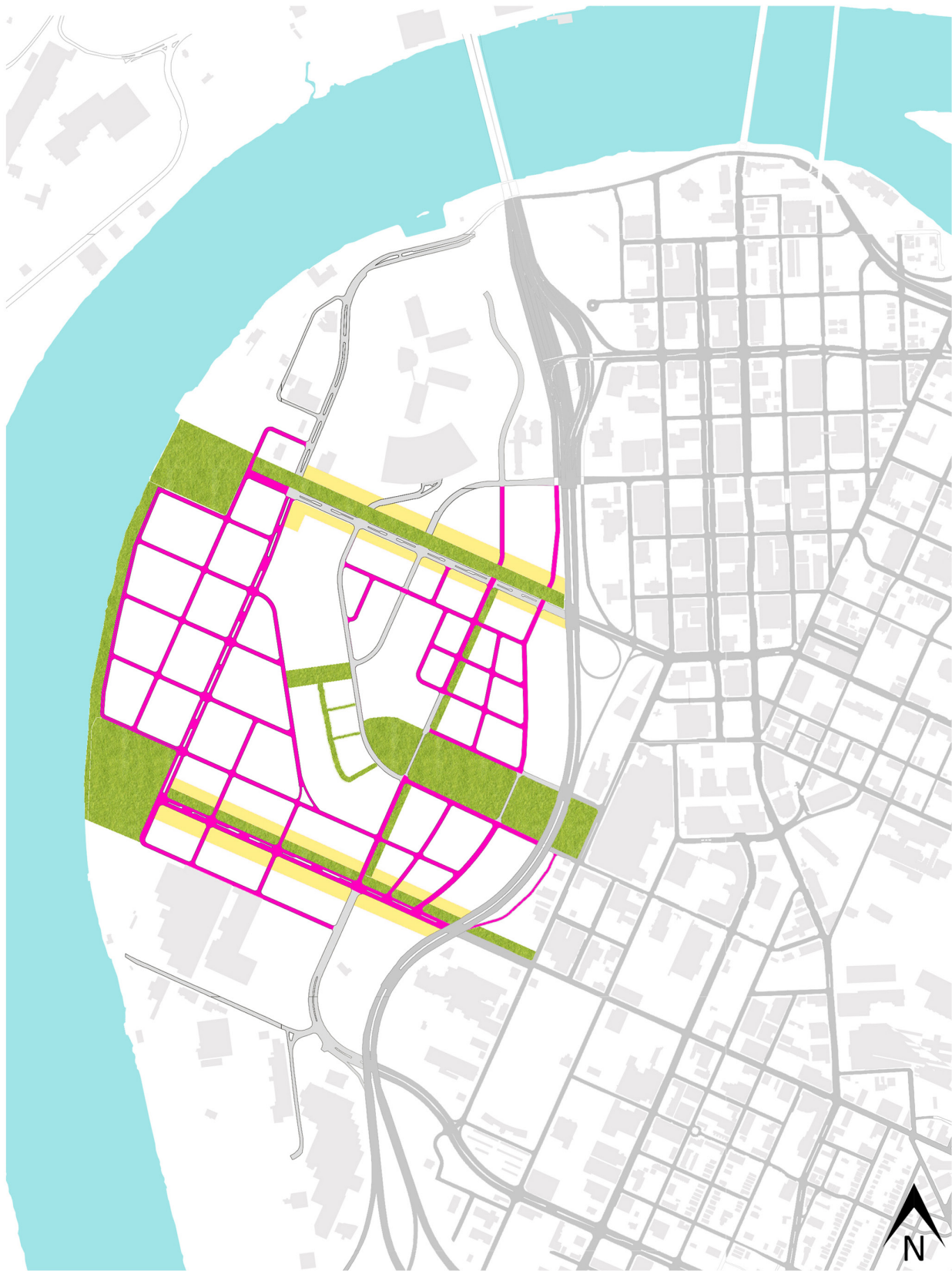
The proposed urban framework plan builds off the previous urban framework scenarios. The intent was to bridge the gap between the residents of Westside by aiming to create a mixed income- multi generational walkable neighborhood, along with connecting the Westside to Downtown.

- The Commercial spaces along Main street and MLK are extended to terminate in new public spaces along the edge of the River. The industries are replaced by a new residential neighborhood, facing the river, further increasing the land value of the region.
 - To establish a connect to downtown, the highway is raised on pilotis with a central regional park connecting the Westside to the Chattanooga Convention center. A walkable neighborhood is achieved through multiple pedestrian boulevards connecting the various regions of the Westside, and finally connecting to the River itself.
- Finally, the Westside is connected to the landmarks of Downtown through the extension of the pedestrian boulevards, enhancing the walkability for the city of Chattanooga.



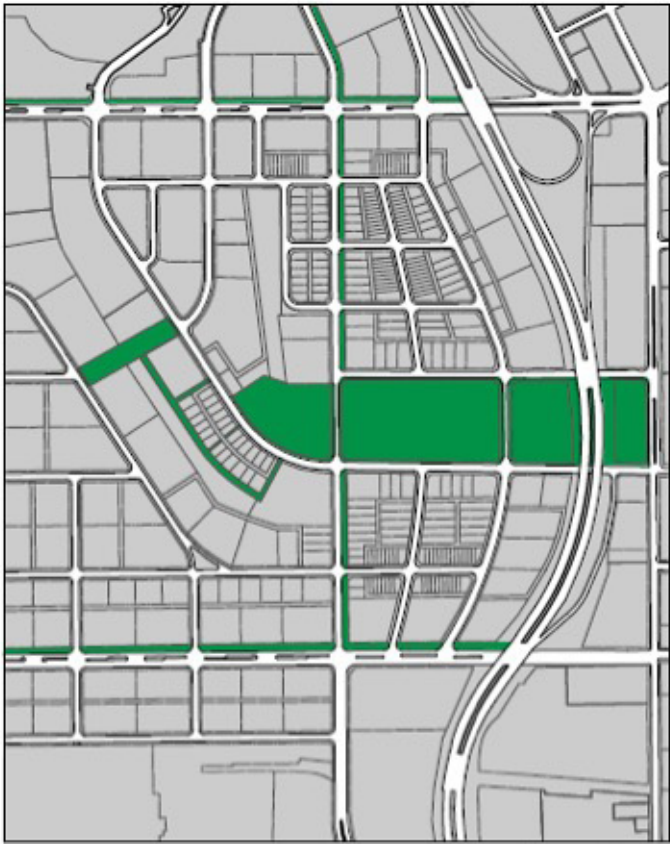
Existing urban framework

OVERALL URBAN FRAMEWORK PROPOSED

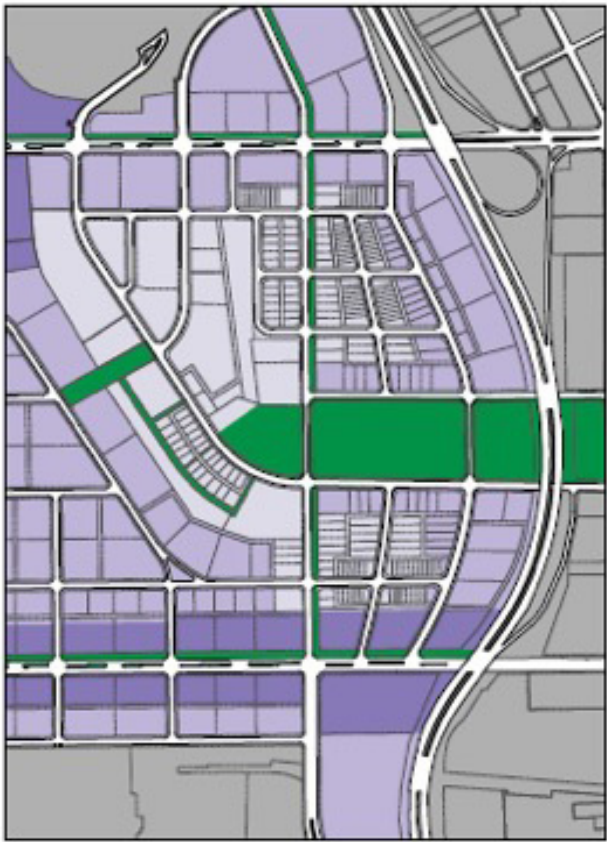


- Proposed street network
- Commercial Zone
- Green pedestrian boulevards

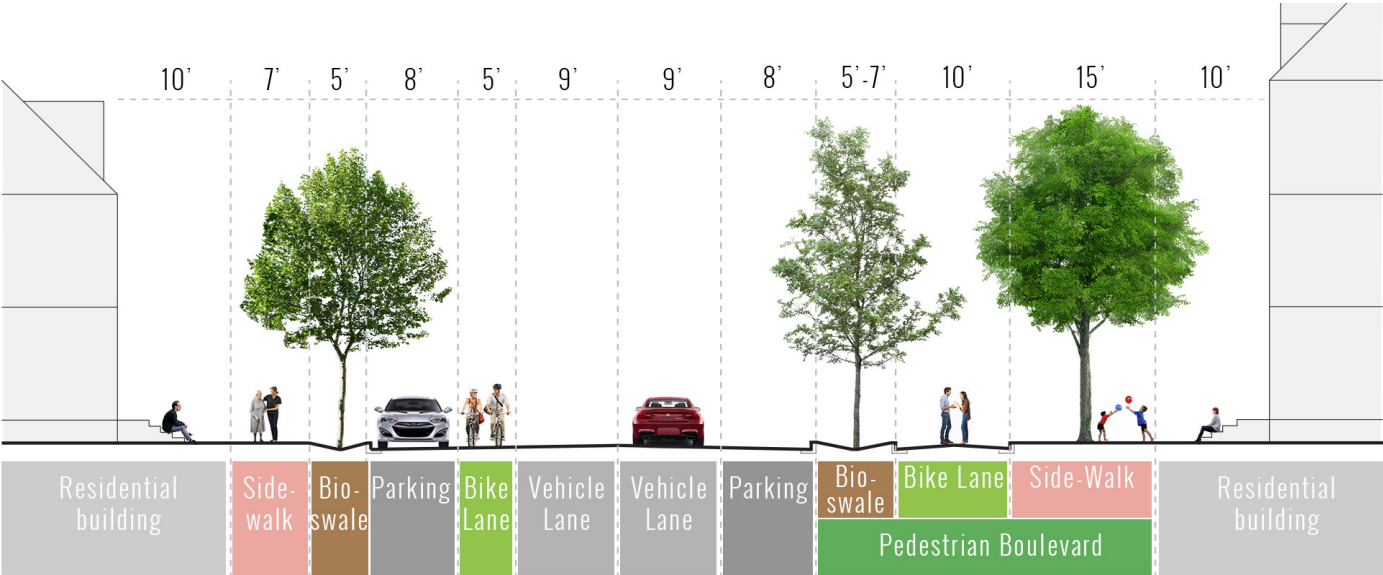
REGULATORY PLAN



Proposed green network of parks, greenways, and pedestrian paths.



Proposed Regulating Plan showing mixed lot-sizes and a Form-Based Code of mixed-use transect zones T5 (dark purple for General Urban, primarily commercial), T4, (mid-purple for General Urban primarily residential), and T3 (light purple for Suburban character.)



RESIDENTIAL PEDESTRIAN BOULEVARD

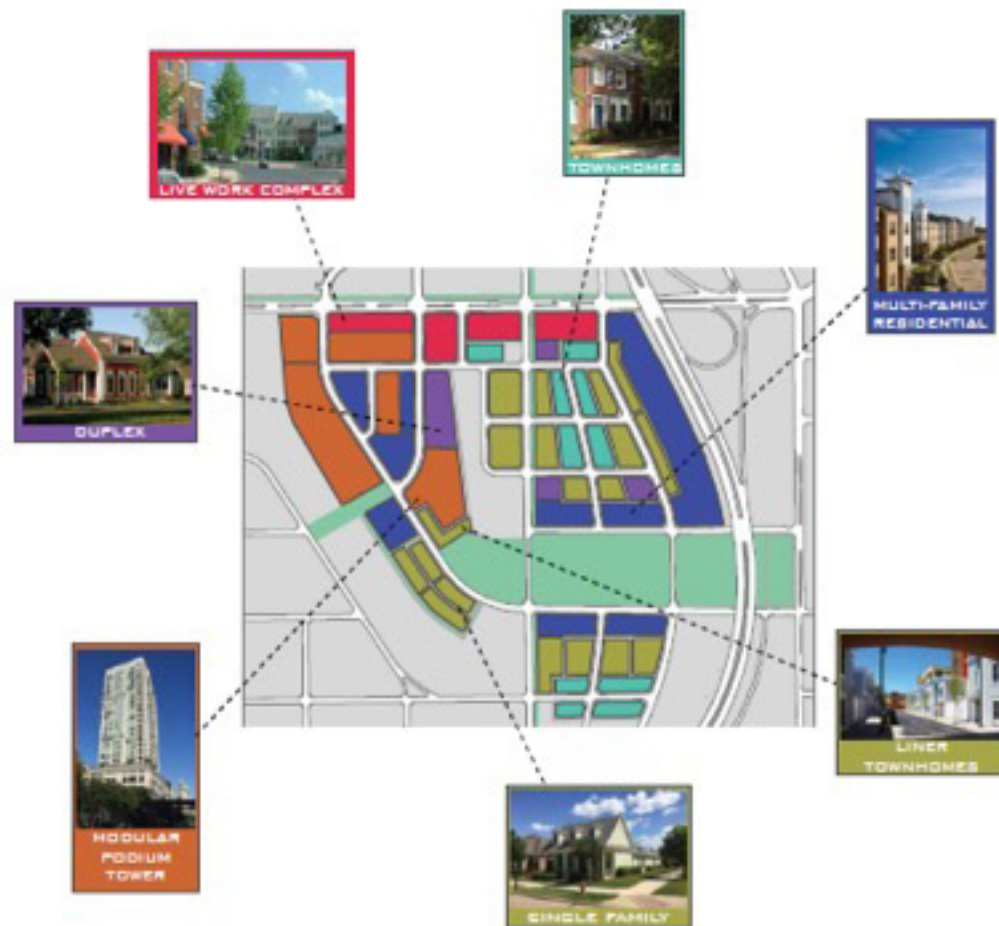
ILLUSTRATIVE PLAN



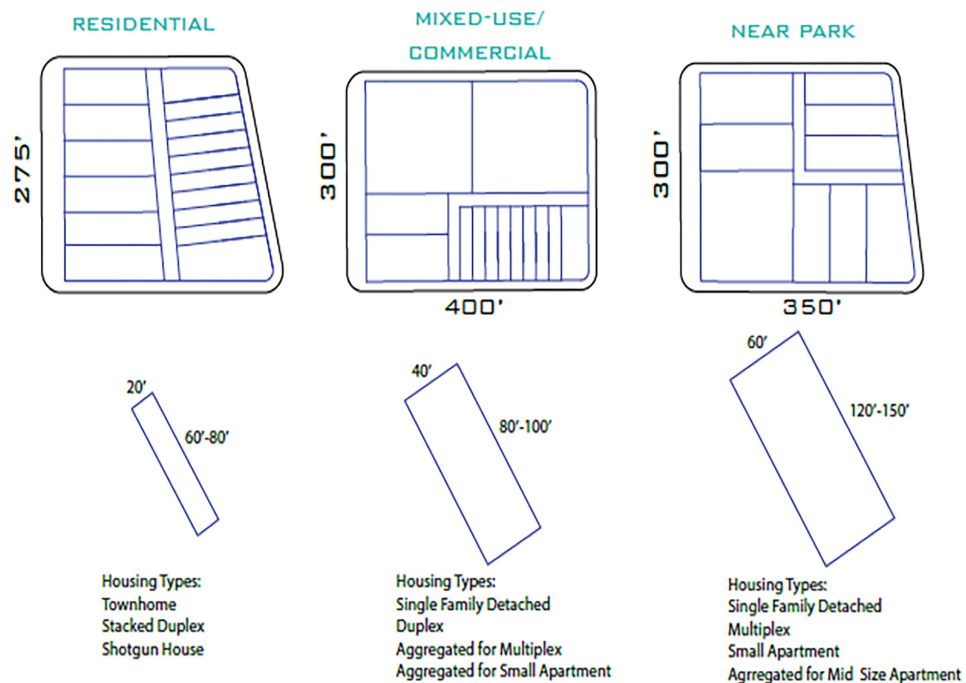
Proposed Illustrative Plan showing potential building footprints.

HOUSING AND LOT VARIETY

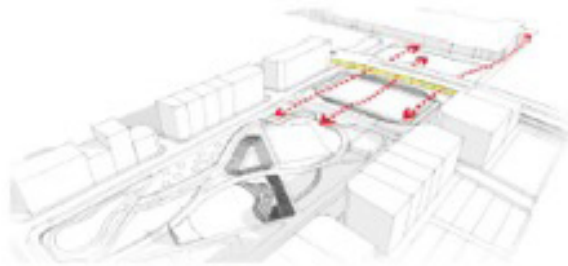
Illustrations of potential mix of building types



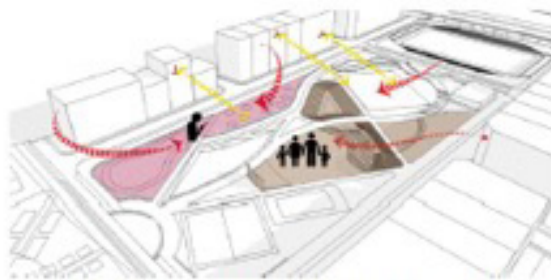
Sample block types illustrating subdivision into mixed-lot sizes to accommodate service alleys and multiple housing types. Lots are sized to allow market flexibility.



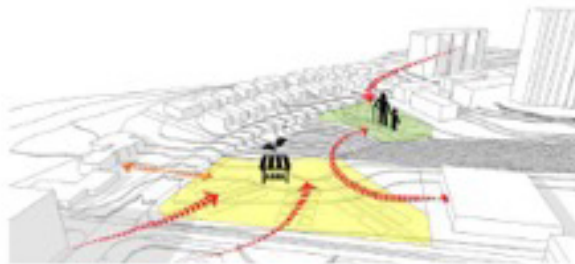
NEW PARK DESIGN STRATEGY



US 27 HIGHWAY MOUNDS TO PILOTIS FOR WESTSIDE
DOWNTOWN CONNECTION

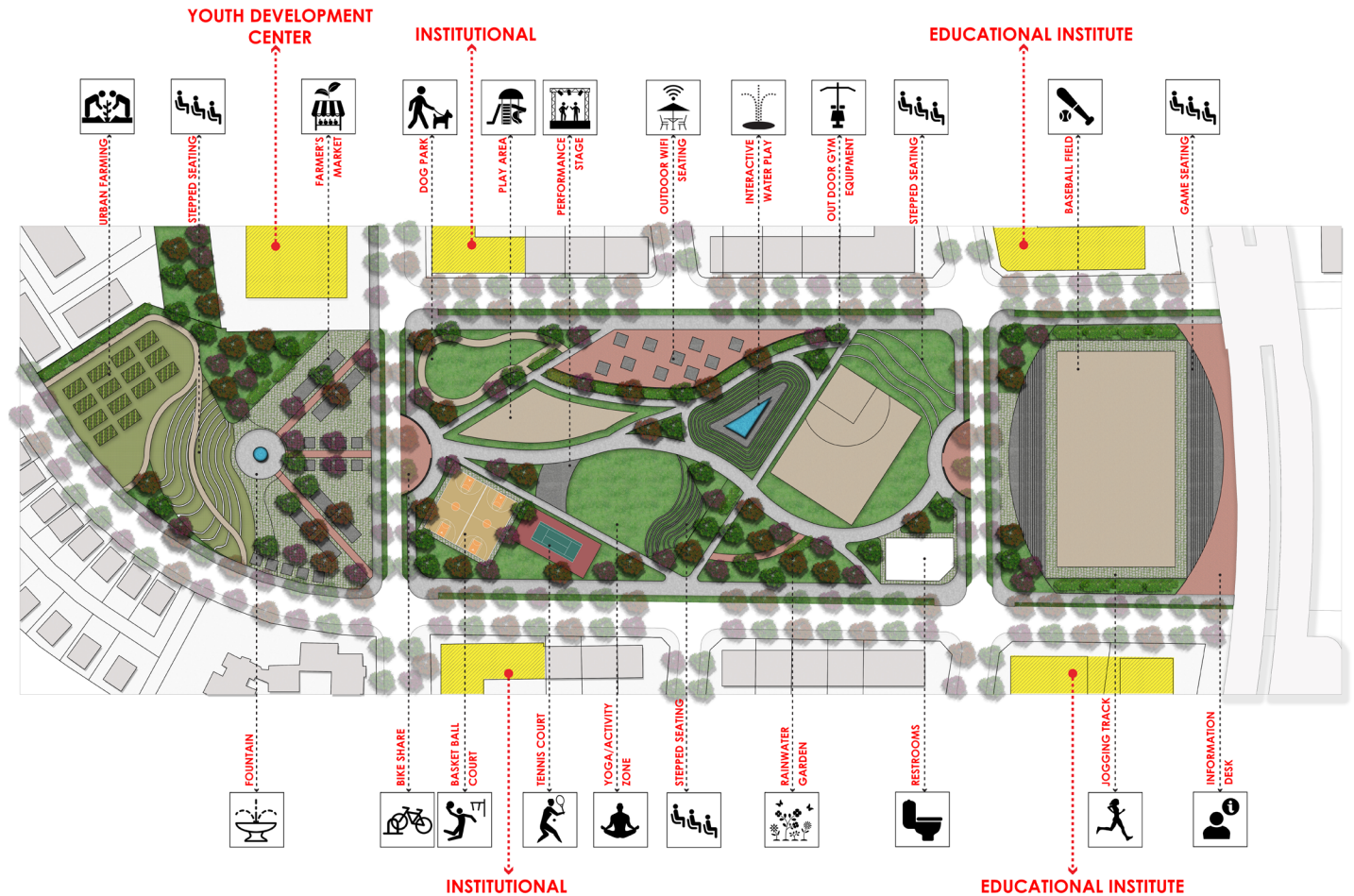


MULTI-GENERATIONAL PARK ACTIVITIES & VISUAL
CONNECTION



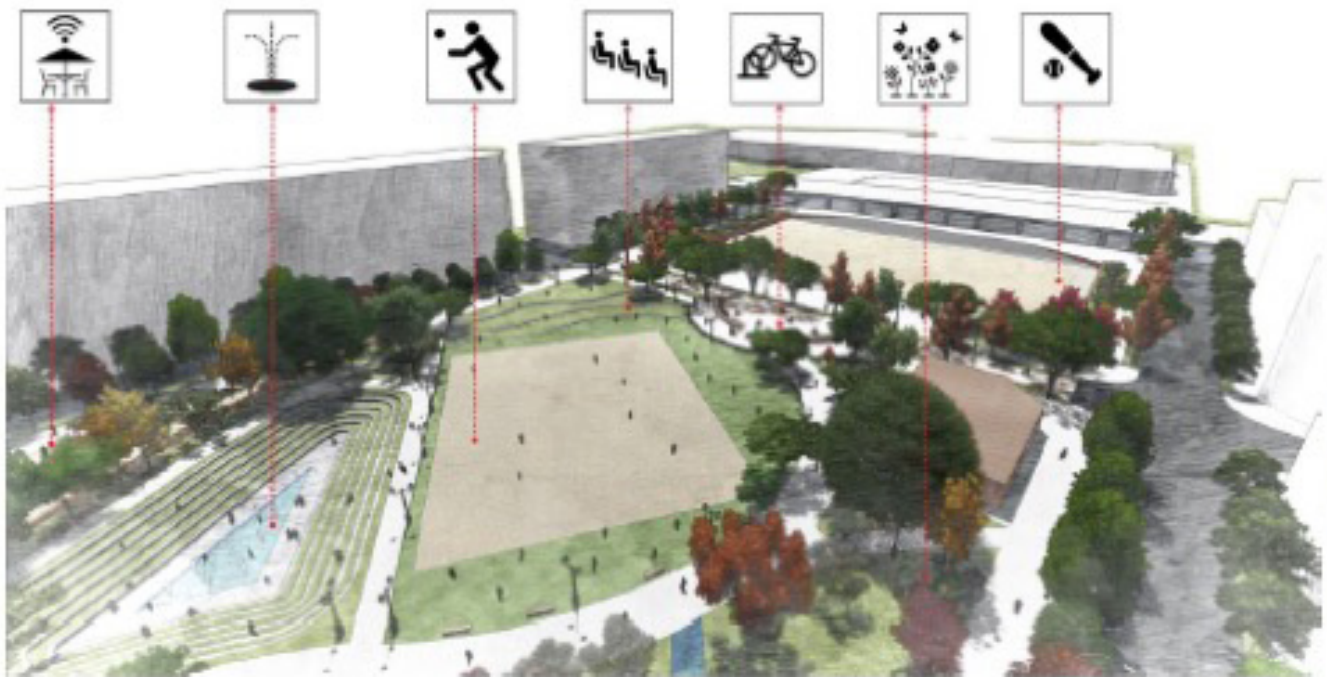
SHARED PUBLIC SPACES

ILLUSTRATIVE PARK PLAN

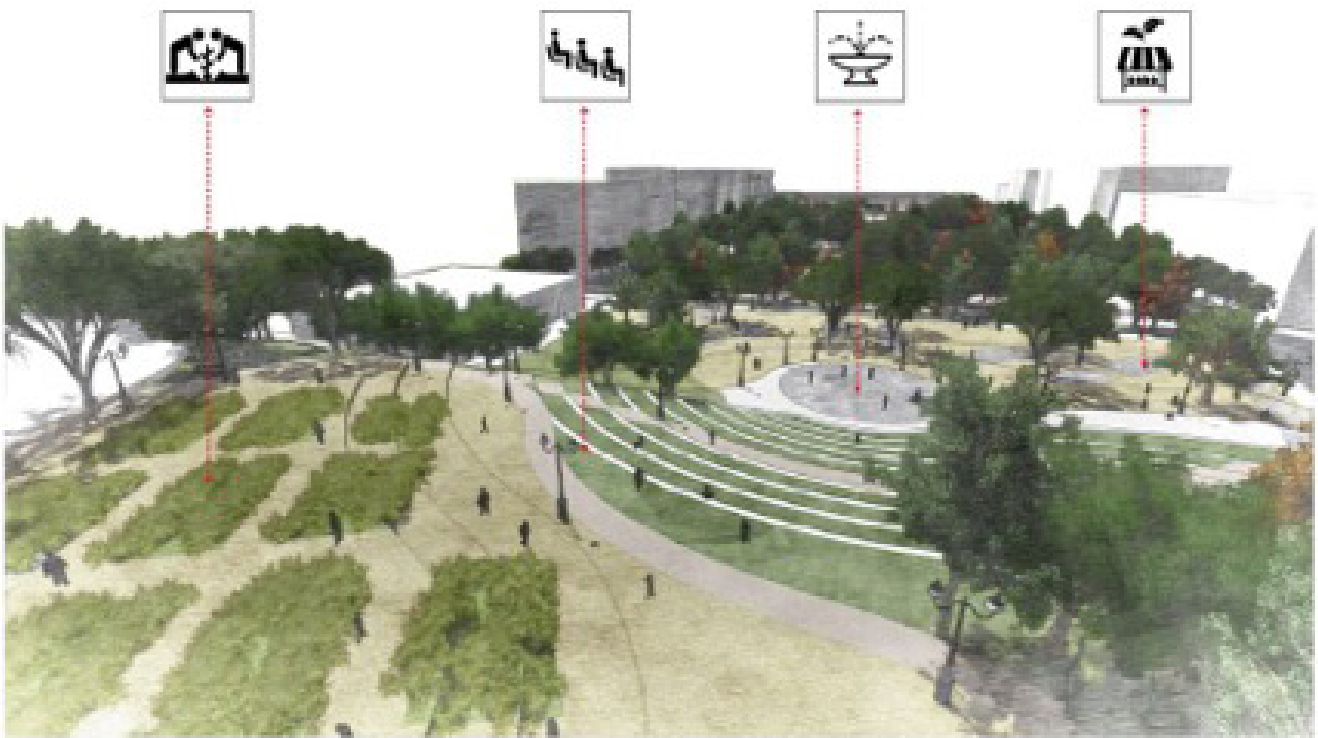


The proposed central park is designed to attract multiple audiences and promote social interaction, while taking advantage of the topography. The existing topography on site has been used to its maximum potential by creating walking trails, extending the Seniors urban farming and creating new event spaces. The regional park is envisioned as an active park with functions for the various age groups of Westside and for the residents of Chattanooga, extending from the public region of the Convention center to the residential spaces of the Westside.

PARK PERSPECTIVES



VIEW OF THE POOL AND PLAYING FIELDS



VIEW OF THE COMMUNITY GARDENS AND AMPHITHEATER

ALTERNATIVE HIGH DENSITY PLAN

This is an alternative plan of the residential sub-area. This plan also caters to mixing the ages and incomes of future residents and keeps the idea of the central park. But it rethinks the relationship of the Westside to the highway and further diversifies the mix on the Westside by bringing in more office and an alternative configuration for the housing.

Like the previous proposal, this proposal extends the park under the highway at the Convention Center. However, it proposes building parking garages with green roofs along the west side of the highway's berms, creating an elevated green buffer while masking parking for a new series of office buildings along, but set back from, the highway.

In addition, this proposal rethinks highway egress and exits, removing three of the eight circular ramps: the entry to the highway from the west heading south; the exit for drivers from the North going West; and the exit for drivers from the north going east. These routes are replaced by reconfiguration of surface streets.

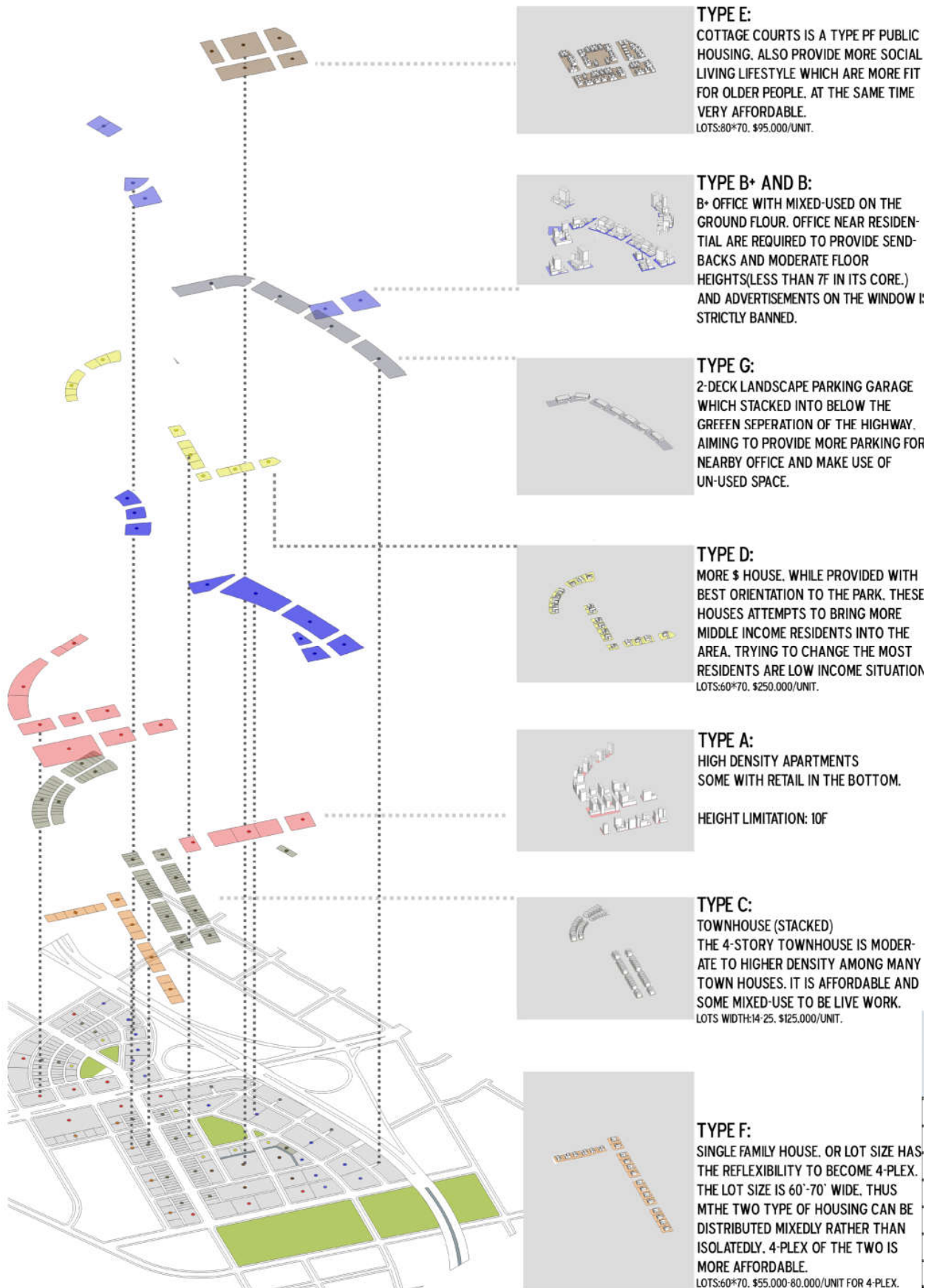


Illustrative plan showing possible building footprints of Alternative Residents Plan

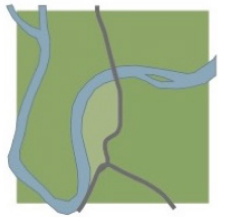


Illustrative plan of possible build out of the Alternative Residents Plan. The massing locates larger lots and taller buildings to capture views and values of the parks and places similar building types facing each other across streets so as to create well-proportioned public spaces where each streetscape is harmonious but together they create great variety in scale and character.

HOUSING FOR DIVERSITY



**RECONNECTING
WESTSIDE
CHATTANOOGA**
RIVERFRONT



INTRODUCTION

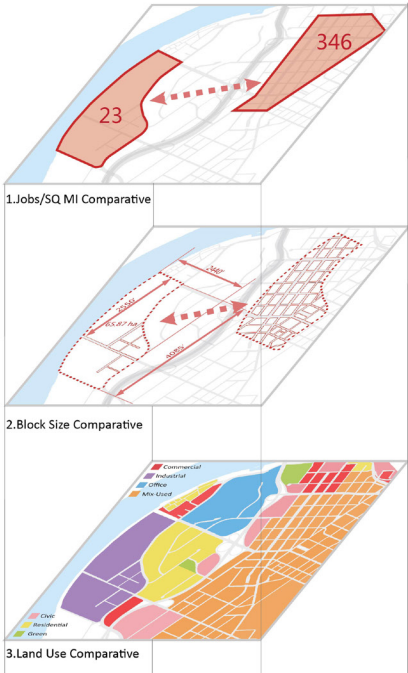


The riverfront on the Westside of Chattanooga is in a state of flux. Historically it has been Chattanooga's industrial center, but the future of the few remaining industries are in question. The industrial areas feature relatively clean, green, high-tech jobs - although not as many jobs as the areas once supported. The large wind turbines that were manufactured here until very recently require transport on the river. There are arguments for trying to find new owners and preserve these industries. However, the recent completion of the Riverwalk in the area and new developments like Cameron Harbor suggest that the city should at least consider the merit of mixed-use redevelopment along the Westside riverfront. Taking this into consideration, the riverfront team began an analysis of the area and identified three major issues. The first issue identified is the Economic disconnect. Compared to the rest of Chattanooga, the Westside has very few jobs and with the industrial areas getting closed, a huge chunk of land will soon be out of

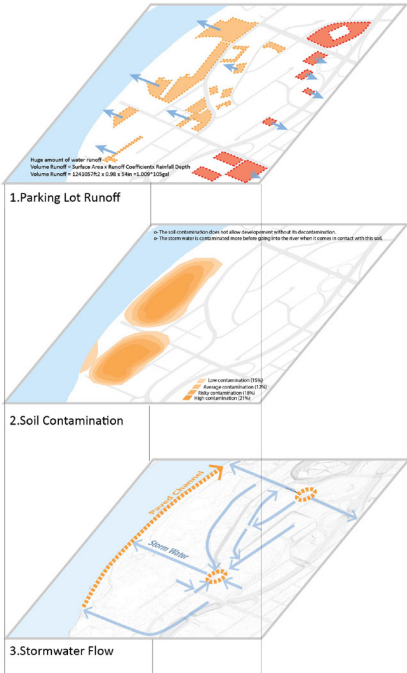
use. The second problem affecting the Westside riverfront is ecological degradation. Huge industrial sites have taken over the riverfront, leaving contaminated brownfields in their wake. The EPA has required Chattanooga to conduct soil remediation on the north side riverfront area, but that is only a chunk of it and the rest of the area remains contaminated. The third problem is the social disconnect, while the rest of Chattanooga has its perks to attract people and tourists, Westside is even losing its identity as a heritage industrial site. You can clearly find tourist attractions all around the Westside, with the Aquarium, the Miller Plaza, innovation district in downtown and many more to attract people. But, while the Westside has been isolated from these attractions, that is starting to change. The success of Cameron Harbor, a new residential community on a former industrial site facing the river has demonstrated the market potential for residential redevelopment of the rest of the industrial properties.

ANALYSIS OF EXISTING ECONOMIC, ECOLOGICAL AND SOCIAL CONDI-TIONS

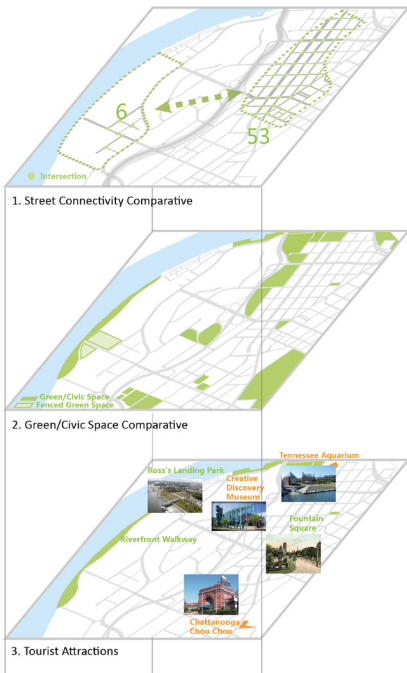
1. ECONOMIC



2. ECOLOGICAL



3. SOCIAL



WHAT IF SCENARIOS

Taking into account the previously identified issues of economic disconnect, ecological degradation, and social disconnect, the riverfront team proposed three urban framework scenarios that addresses the issues and proposed a long term vision for Westside Chattanooga.



What if the riverfront is developed for the highest economic return... This what if scenario develops a large portion of the riverfront for high density residential housing, similar to that found at Cameron Harbor.



What if the focus is storm water + soil remediation... This what if scenario addresses the underlying ecological issues on the site. The focus is on remediating contaminated soil from the industry, and treating stormwater before it gets to the river.



What if industrial stays industrial, but the rest of the Westside is connected to downtown... This what if scenario proposes to keep the existing industry and redevelop the rest of the Westside to better connect with downtown. A proposed redirection of US 27 traffic onto local streets and onto Riverfront Parkway creates an unobstructed connection to downtown.

GOALS AND STRATEGIES

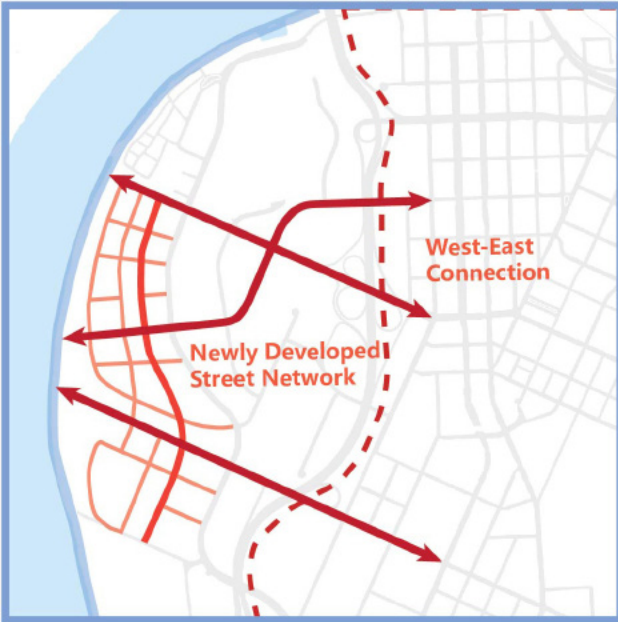
Based on the analysis of the riverfront and the exploration of urban framework scenarios, the team developed a set of goals and strategies to move forward and develop a long term plan for the westside.

GOALS

- 1. Increase economic investment**
- 2. Remediate soil and treat stormwater**
- 3. Connect people**

STRATEGIES

- 1. Increase street connectivity**
- 2. Connect to the river**
- 3. Clean water and soil**
- 4. Stormwater treatment as a feature in public space**



**Goal 1 + 3 Economic Investment
& Connecting people**



**Goal 1
Economical Investment**



**Goal 2
Clean water + soil**



**Goal 2+3 Clean water + soil
& Connecting people**

PROPOSED PLAN

The proposed urban framework plan builds off the previous urban framework scenarios. The intent was to increase the residential and commercial density on the site while retaining a small area of industry just south of Main Street. The northern industrial building's contamination make it harder to re-use. The southern industrial building could be retained for a single user or be subdivided for smaller-scale manufacturing/making related to Chattanooga's Innovation District. The focal point of the plan is the stormwater park located at the end of Main street as it meets the river, creating a celebratory terminus where Main Street meets the river.

EXISTING USES



PROPOSED USES

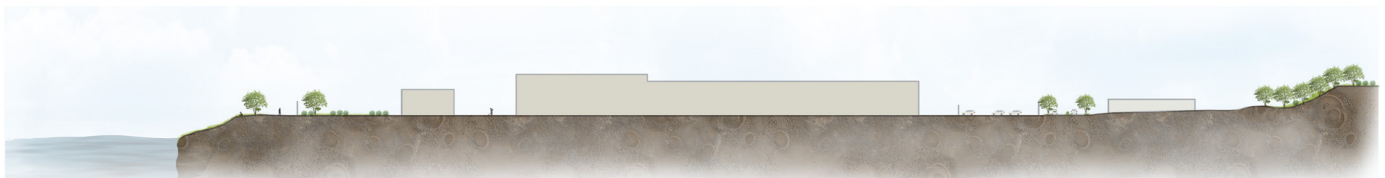
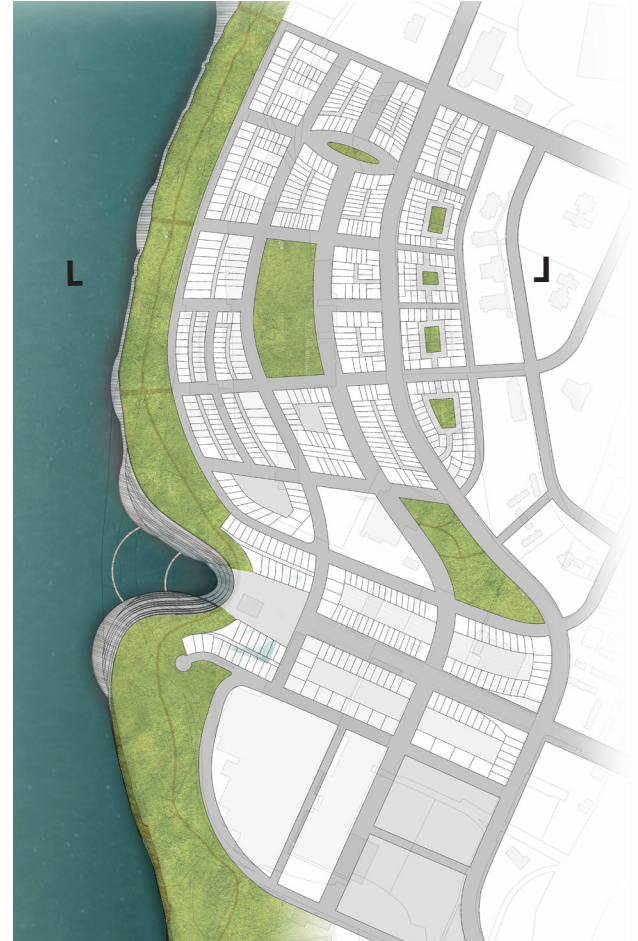


REGULATORY PLAN

PLAN HIGHLIGHTS

- Entertainment and mixed use to line Main Street
- Remove the asbestos-filled, older GE building
- Remediate the soil and create a neighborhood park
- New neighborhood of diverse building types, pocket parks, and a school
- Re-grade the “cliff” between Riverfront Parkway and Boynton Drive into a more continuous slope
- Apartment buildings and through streets to improve connectivity with existing and new residential development to the east
- Rehab the newer GE building for gig economy and entrepreneur manufacturing

REGULATING PLAN



Site Section - Before



Site Section - After

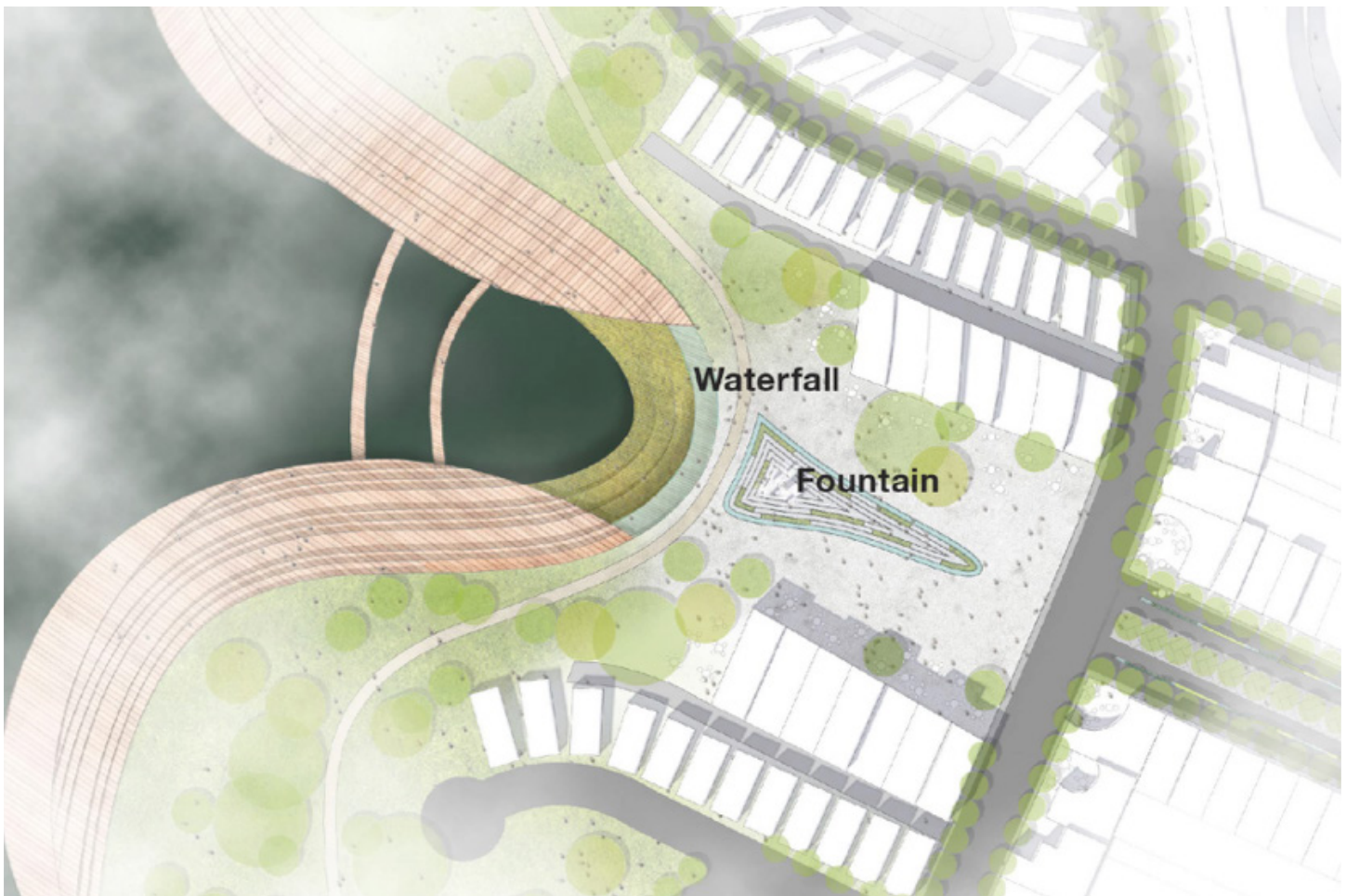
ILLUSTRATIVE PLAN



PUBLIC SPACE ILLUSTRATIVE PLANS

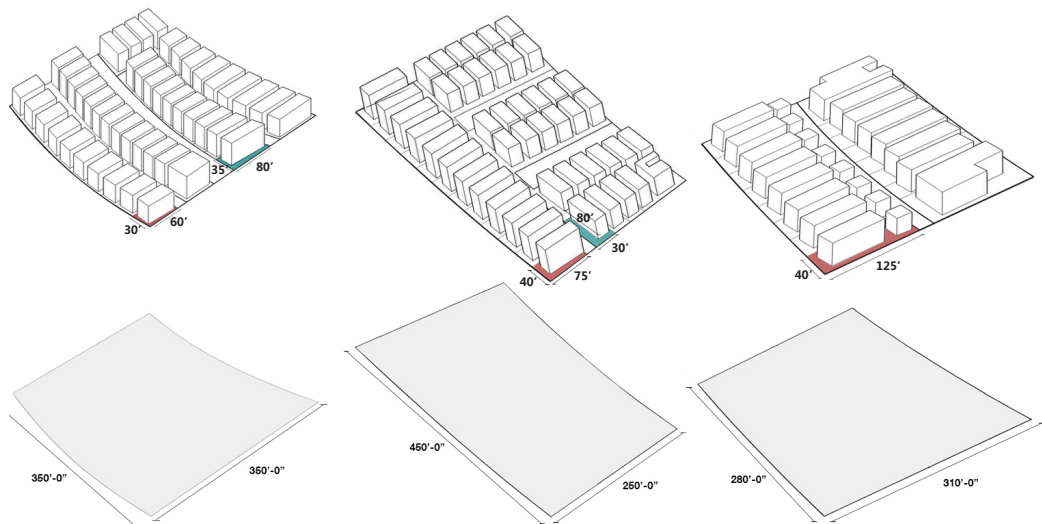


Sunflowers are effective plants for phytoremediation of contaminated soils. Sunflower gardens will be used to cleanse the soil while providing a distinctive and attractive asset in the community park.

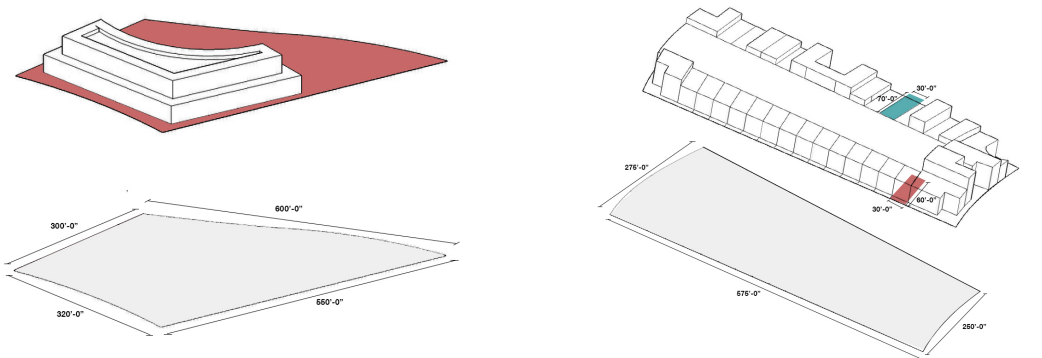


The Waterfall plaza is designed to capture and clean run-off through a series of tiered reed beds before the water cascades into the river. It is intended to both educate and entertain while serving as a gathering place at the end of Main Street for all to enjoy the riverfront.

LOTS / BLOCK / HOUSING TYPOLOGY

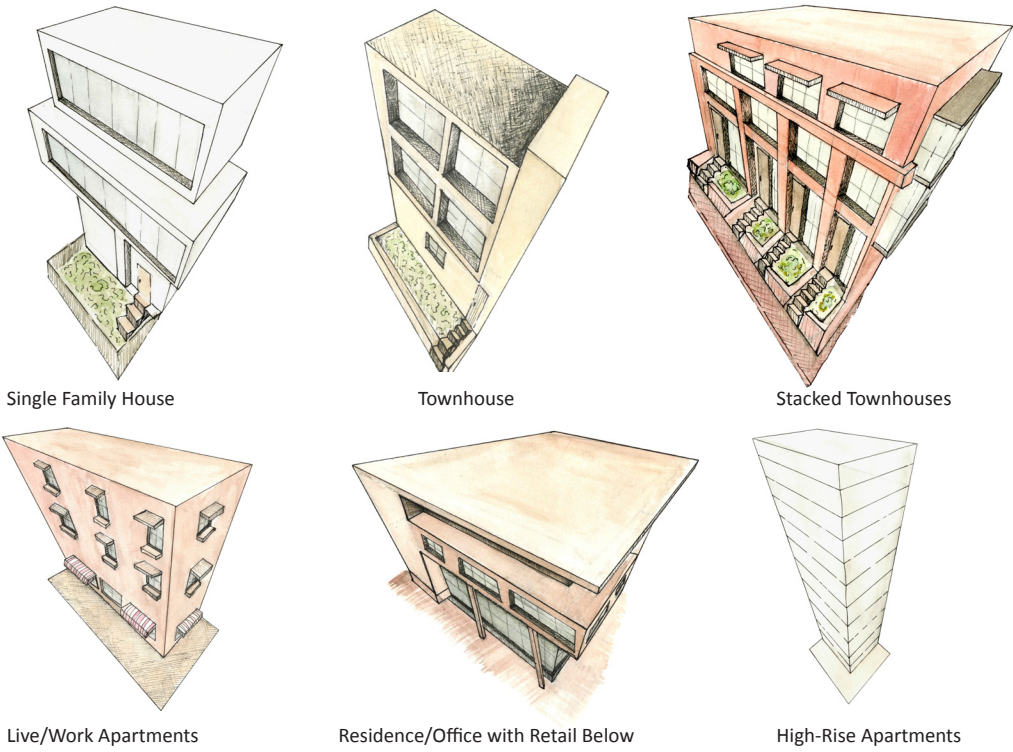


Riverfront Type



Civic Type

Commercial Type



Single Family House

Townhouse

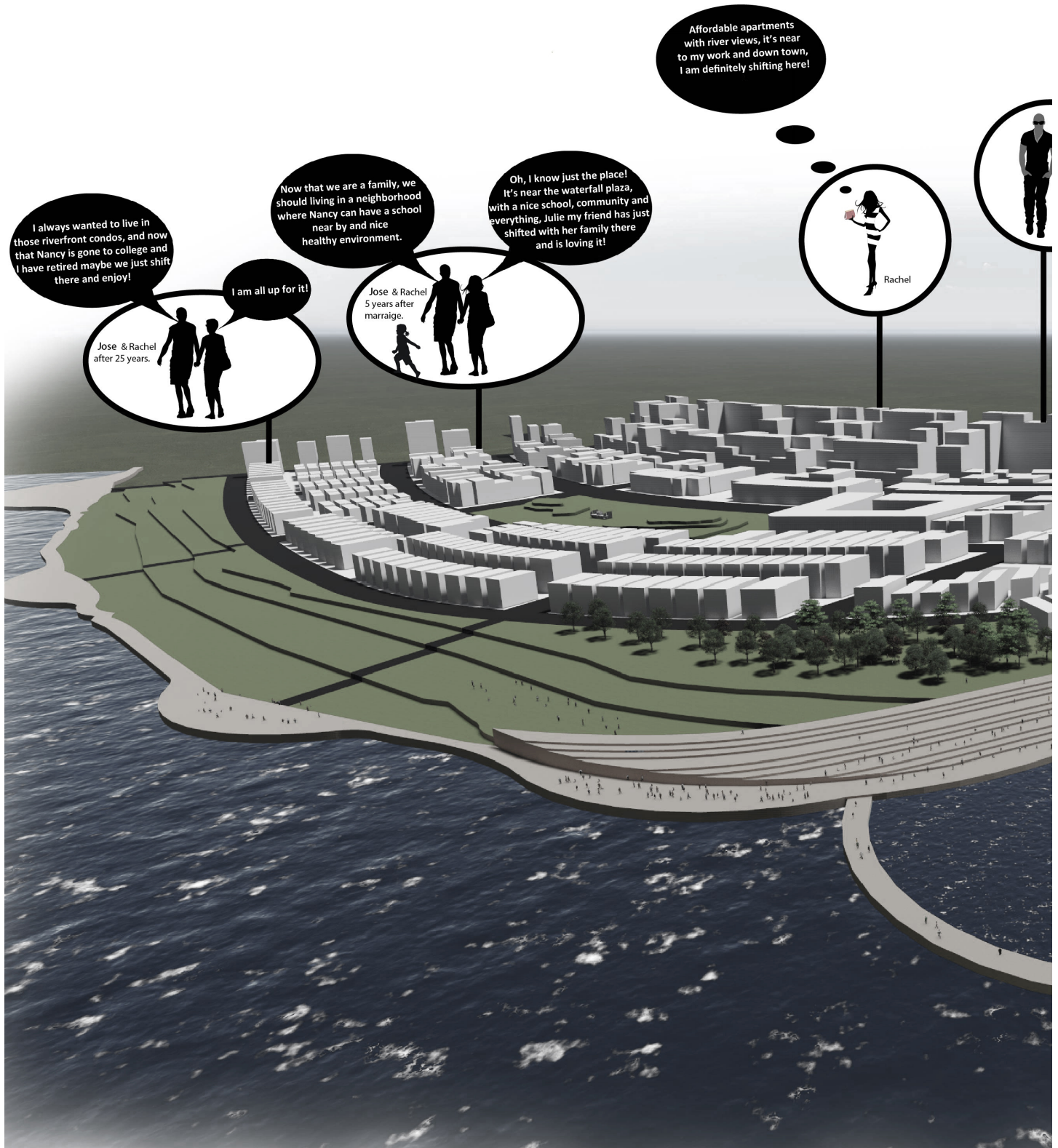
Stacked Townhouses

Live/Work Apartments

Residence/Office with Retail Below

High-Rise Apartments

PERSPECTIVE VIEW OF THE NEW WATERFALL PLAZA AND NEIGHBORHOOD CONNECTING THE WESTSIDE TO ITS WATERFRONT.



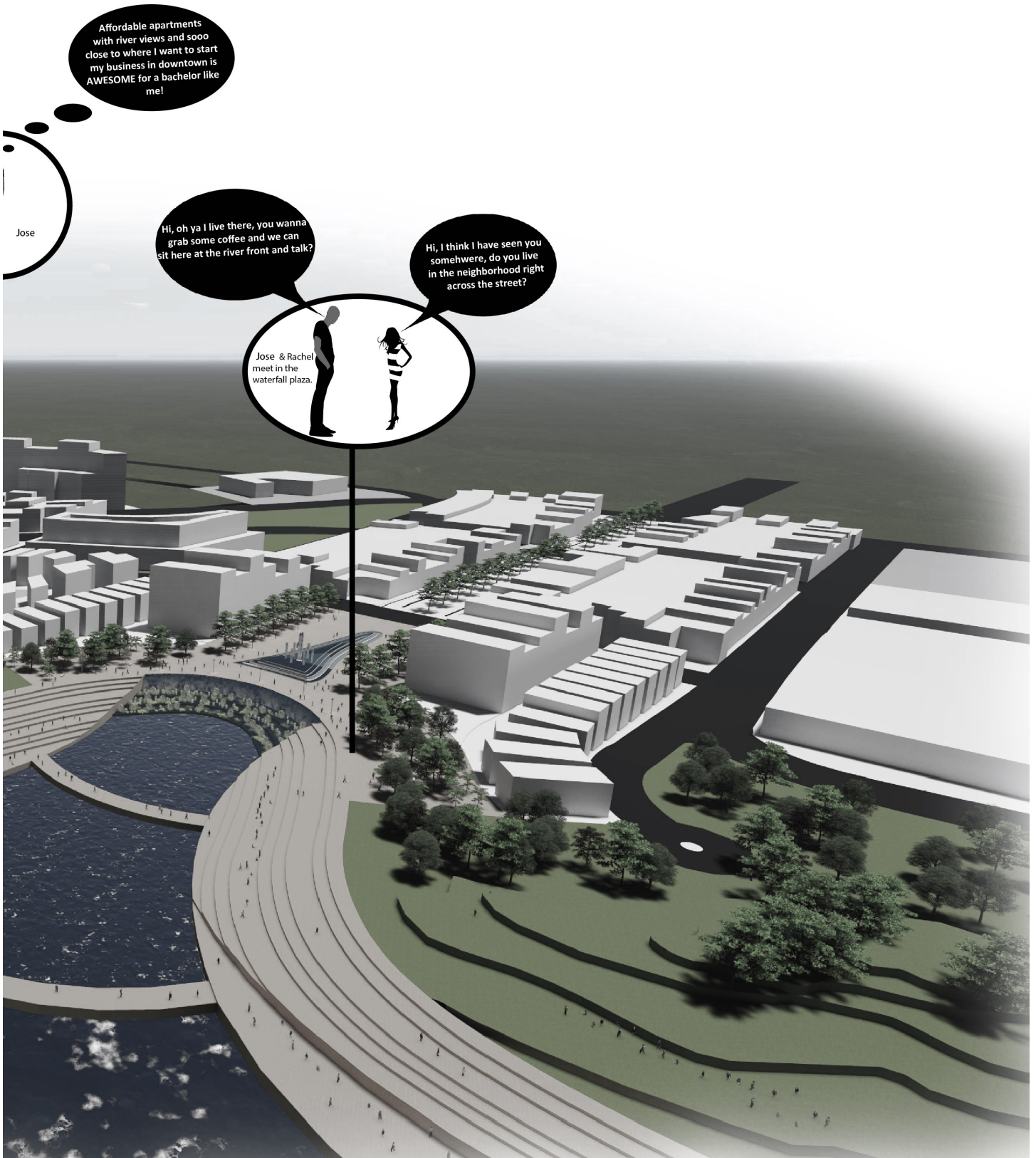
Affordable apartments
with river views and sooo
close to where I want to start
my business in downtown is
AWESOME for a bachelor like
me!

Jose

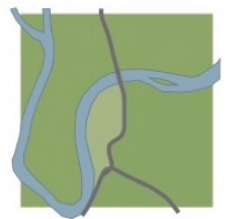
Hi, oh ya I live there, you wanna
grab some coffee and we can
sit here at the river front and talk?

Hi, I think I have seen you
somewhere, do you live
in the neighborhood right
across the street?

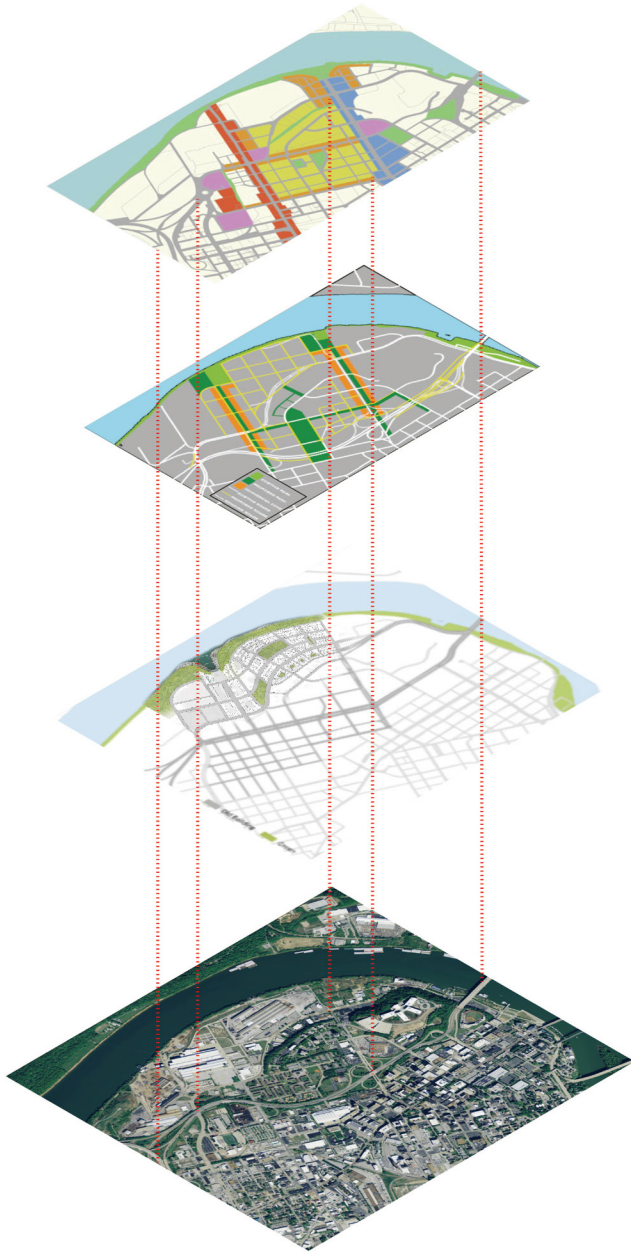
Jose & Rachel
meet in the
waterfall plaza.



**RECONNECTING
WESTSIDE
CHATTANOOGA**
CONCLUSION



CONCLUSION



The proposals by the three teams intentionally address the multifaceted challenges and opportunities of the Westside: its corridors, its residents and its riverfront. Rather than one coordinated masterplan, the proposals deliberately present different ideas to help Chattanooga consider a range of options. Aspects of each of the plans can map onto each other as opportunities avail themselves. Within this flexibility, nonetheless certain principles emerged repeatedly. These include the benefits of: distributing US 27's traffic onto surface streets throughout Downtown where it can support economic activity instead of creating an unnecessary division between the Westside and Downtown; connecting both Main St and Martin Luther King Boulevard to the Riverfront and Riverwalk; introducing a greater variety of housing types to the Westside - especially affordable unit types such as cottage courts, stacked townhomes, and other "missing middle" types that can help balance the income spread between residents in the senior housing and Cameron Harbor.

We hope these proposals will help the city of Chattanooga and the residents of the Westside envision the future they desire and deserve.